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REPORT
ON
KENTUCKY SURGERY,

READ BEFORE THE
KENTUCKY STATE MEDICAL SOCIETY,

AT ITS ANNUAL MEETING

AT LOUISVILLE, OCT. 27, 1852.

SURGEON GENERAL'S OFFICE

AUG. 20. 1902

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By S. D. GROSS, M. D.

LOUISVILLE, KY.
WEBB & LEVERING, MAIN STREET,
1853.

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A YEAR ago, I had the honor to be appointed by this Society, Chairman of a "Committee on Improvements in Surgery," with the privilege of selecting two associates. Not wishing to trouble any one with a labor, the nature and extent of which I did not, at first, myself fully comprehend, I determined to trust to my own unaided efforts: and now appear before you as sole reporter. For the same reason I shall, in rendering an account of my undertaking, use the pronoun "I," instead of the more imposing and, perhaps, dignified term, "Chairman" of the Committee.

I did not know until after the publication of the proceedings of the first meeting of the Society, how indefinite was the nature of the duty assigned to me. The committee is expected to report on "Improvements in Surgery." On what improvements?—Hardly anything could be more vague than this expression, and I can scarcely suppose that it was the wish of the Society to restrict the labors of the Committee to such narrow limits. At any rate, be this as it may, it is to be regretted that its instruction was not more positive and explicit. Were the Committee to confine itself strictly to the duty prescribed by the Society, its labors would, indeed, be light and unimportant; for no one will pretend to assert that Kentucky has effected much "improvement in Surgery," however rich and creditable may be her exploits in this branch of the healing art.

Instead, therefore, of doing this,—instead of selecting a few prominent topics and discussing them in a minute and elaborate manner, I have preferred to take up the subject of Kentucky Surgery in its entire range, commencing with the earliest period of its history, and bringing it down to the present moment. In a word, I have rendered my report as retrospective as possible, by embodying in it an analysis, or, more correctly speaking, a synopsis, of the labors and contributions of our predecessors, as well as those of our cotemporaries. In this manner, and in this manner alone, could the Committee hope to do justice to the subject, or exhibit it in its proper and legitimate aspect. I am not vain

enough to suppose that I have exhausted the subject; like a traveler who is exploring, for the first time, the resources of a new country, I have made extensive excursions, wandering hither and thither in pursuit of objects, culling here and there a choice flower, or picking up a gem by the way-side; but many things have, doubtless, escaped my attention, and much is left to reward the research and scrutiny of my successors.

In the discharge of the onerous duty which I have assumed, I have endeavored to do justice to all; to show partiality to none. If anything of importance has been omitted, it must be attributed to inadvertence, or to a want of co-operation on the part of my brethren in the profession, whose attention was prominently called to the subject, months ago, in a "circular," in both of our medical journals, and in almost every respectable newspaper in the State.

I have sought information wherever I thought it was to be found. I have written numerous letters to professional and non-professional individuals, with a view of hunting up, or tracing out, cases of special interest or importance in surgical pathology and practice. I have consulted, for the same purpose, numerous medical journals, and even occasionally monographs and systematic treatises. In short, I have spared neither pains, trouble, nor expense, to do justice to my report.

The principal periodicals to which I have resorted for information are, the *Transylvania Journal of Medicine and the Associate Sciences*; *Dr. Drake's Journal of the Medical and Physical Sciences*; the *Western Journal of Medicine and Surgery*; *Lawson's Western Lancet*; and the *Transylvania Medical Journal*. I have also consulted *Chapman's Philadelphia Medical Journal*; the *American Journal of the Medical Sciences*; the *North American Medical and Surgical Journal*; the *American Medical Recorder*; and the *Philadelphia Medical Examiner*. The *Philadelphia Eclectic Repertory* has supplied me with the details of *Dr. McDowell's* first five operations of ovariectomy.

My particular acknowledgements, for favors rendered me, in reference to my report, are due to *Dr. James Overton*, of Nashville, Tennessee; to *Prof. Drake*, *Prof. Lawson*, and *Dr. E. Williams*, of Cincinnati; *Dr. W. A. McDowell*, of Evansville, In-

diana; Dr. G. W. Bayless, of Missouri; and Prof. F. G. Smith, of Philadelphia. I am also under obligations, for similar reasons, to Prof. Bush, and Prof. Peter, of Lexington; Dr. Galt, of Louisville; Dr. Robertson, of Nicholasville; Wallace W. McDowell, Esq., of Danville; Dr. Gardner, of Woodsonville; Dr. Chipley, of Lexington; Charles F. Wing, Esq., of Greenville; R. B. Bra-shear, Esq., of Louisiana; Dr. J. M. Mills, of Frankfort; and Dr. Bemiss, of Bloomfield.

Little appears to have been published by Kentucky surgeons and physicians prior to the establishment of the "Transylvania Journal of Medicine and the Associate Sciences," at Lexington, in 1828. In the first volume of that periodical is contained, if my information is correct, the first contribution to professional science ever made by Dr. Benjamin W. Dudley, at that time, and for many years subsequently, the able and distinguished professor of anatomy and surgery in the Medical Department of Transylvania University, the oldest, and, for a number of years, the most celebrated and successful school of Medicine in the valley of the Mississippi. The publication of the journal in question opened a new avenue to the practitioners of the South-west for the communication of their observation and experience to their brethren in other portions of the country, and we accordingly find that there is not a volume of it that does not contain original papers, upon medicine and its cognate branches, of more or less interest and value. The surgical material, however, which has been thus furnished is, it must be confessed, with few exceptions, comparatively meagre; consisting, as it does, for the most part, rather of isolated cases and facts than of connected and well-digested monographs. Dr. Benjamin W. Dudley and his immediate pupils are the chief contributors, and it strikes the reader as not a little singular that many of the articles which appear in the pages of the Transylvania Journal, are filled with the details of this distinguished surgeon's own cases, or of cases expressly designed to illustrate his doctrines and practice. I know not of a similar instance of the kind in the United States, where the influence of a preceptor has excited so strong and reverential a devotion on the part of his pupils, or whose teachings have sunk more deeply into the hearts and minds of his hearers.

I do not believe that Dr. Rush, the ablest and most eloquent professor of medicine in his day in this country, enjoyed so wide and controlling a popularity as Dr. Benjamin W. Dudley, or that his doctrines and practice were received with as much enthusiasm, confidence and *oneness* of feeling as were those of the Western Corypheus of Surgery, in the palmiest days of his usefulness and renown. Such devotion is, indeed, rare in any country, but especially in this, where every one is disposed, from his earliest childhood, to think and to act for himself; where, in short, "*nul- lius addictus jurare in verba magistri.*" It exhibits Dr. Dudley's popularity in a light, alike flattering to his own feelings, and creditable to those of his pupils.

Dr. Ephraim McDowell, another of Kentucky's illustrious surgeons, never contributed anything to any Western periodical. The only papers, in fact, which he ever published were two short ones in the seventh and ninth volumes of the Philadelphia Eclectic Repertory, detailing several of his cases of ovariectomy, at that time so incredulously received by his professional brethren, but which have since created for him a world-wide celebrity. Dr. Brashear, another surgeon of distinction, never wrote anything for our medical journals.

In the prosecution of my labors, I do not deem it necessary to adopt any particular chronological arrangement: this, indeed, would be impracticable. As marking the first great epoch in Kentucky Surgery, I shall begin with the subject of ovariectomy; considering, afterwards, in regular succession, the lesions and operations of particular regions and organs of the body.

OVARIOTOMY.

To Kentucky belongs the honor of having furnished to the world the first case of extirpation of the ovary, for organic disease of this organ. This honor is justly and exclusively due to the late Dr. Ephraim McDowell, of Danville. From a paper published by this gentleman in the seventh volume of the Philadelphia Eclectic Repertory, it appears that his first operation was performed in December, 1809. It is not known, with any degree of certainty, how often Dr. McDowell repeated this operation;

his published cases amount only to five, but there is reason to believe from what I have learned from his nephew, Dr. William A. McDowell, that he performed it not less than thirteen times.

During the progress of my labor, as Chairman of the Committee on Surgery, of this Society, I have, in consequence of letters addressed to various gentlemen in Kentucky, Ohio, and Tennessee, been made acquainted with the particulars of three cases more, which, added to those published by Dr. Ephraim McDowell himself, increase the aggregate to eight. It is to be deeply regretted that Dr. McDowell did not keep a record of his operations, or communicate the results to his professional brethren. Such a contribution would not only have greatly enhanced his own reputation, as a bold and original surgeon, but it would have conferred an inestimable boon upon suffering humanity.

As the operations in question reflect the highest credit, not only upon Kentucky, and upon Kentucky's illustrious surgeon, but upon the United States, and as they have been mainly, if not exclusively, instrumental in directing the attention of the profession, both in America and in Europe, to a subject which has, of late years, elicited so much interest, research and skill, it is proper that I should give a brief analysis of them, in order, more especially, that the world at large may know what knowledge and science, when aided by intrepidity and dexterity, may accomplish even in a backwoods settlement of Kentucky. Dr. McDowell's first three cases are published in the seventh, and the last two in the ninth volume of the Philadelphia Eclectic Repertory.

Dr. McDowell's *first operation* was performed upon Mrs. Crawford, of Kentucky, in December, 1809. The tumor inclined more to one side than the other, and was so large as to induce her professional attendant to believe that she was in the last stage of pregnancy. She was affected with pains similar to those of labor, from which she could find no relief. The wound was made on the left side of the median line, some distance from the outer edge of the straight muscle, and was nine inches in length. As soon as the incision was completed, the intestines rushed out upon the table; and so completely was the abdomen filled by the tumor that they could not be replaced during the operation,

which was finished in twenty-five minutes. In consequence of its great bulk, Dr. McDowell was obliged to puncture it before it could be removed; he then threw a ligature round the Fallopian tube, near the uterus, and cut through the attachments of the morbid growth. The sac weighed seven pounds and a half, and contained fifteen pounds of a turbid, gelatinous looking substance. The edges of the wound being brought together by the interrupted suture and adhesive strips, the woman was placed in bed and put upon the antiphlogistic regimen. "In five days," says Dr. McDowell, "I visited her, and, much to my astonishment, found her engaged in making up her bed. I gave her particular caution for the future; and in twenty-five days she returned home in good health, which she continues to enjoy."

It will not be uninteresting here to state, that Mrs. Crawford, at the time of the operation performed upon her by Dr. McDowell, lived in Green county, Kentucky, from whence she removed, sometime afterwards, to a settlement on the Wabash river in Indiana, where she died, March 30th, 1841, in the 79th year of her age. There was no return of her disease, and she generally enjoyed excellent health up to the period of her death. She had no issue after the operation. Her youngest child, our worthy citizen, Mr. Thomas H. Crawford, who has kindly communicated to me these facts, was born in 1803, nearly, or quite, six years before the operation.

The *second case* was that of a negress. The tumor is stated to have been very large, and so firmly adherent to the bladder and uterus as to render any attempt at extraction perfectly futile.

The operator, therefore, contented himself with making a free incision into it with a scalpel, to let out its contents, which were of a thick, ropy and gelatinous character. The incision was of the same length, and made in the same situation as in the preceding case. Upwards of a quart of blood was lost in the operation. The wound, which was dressed in the ordinary manner, healed without any untoward symptom. The woman remained well for nearly five years, when the tumor began to increase again, and in twelve months it was as large as before the operation.

The *third operation* was performed in May, 1816. The sub-

ject was a negro woman; and the ovarium, which was much enlarged, could be easily moved from side to side, to the left of which, however, it was adherent. Dr. McDowell made an incision into the linea alba, from an inch below the umbilicus to within an inch of the pubes, and then extended the opening towards the right side, about two inches above the former point, to afford himself more room. He next passed a ligature round the Fallopian tube, and "turned out" the left ovary, which was found to be in a scirrhus condition, and to weigh six pounds. The wound was dressed as in the preceding cases, and the woman was well in two weeks, though the ligature did not come away under five weeks. No mention is made of the manner in which the adhesions were overcome.

Dr. McDowell performed his *fourth operation* in April, 1817, upon a colored woman from Garrard county, Kentucky; removing a scirrhus ovary, weighing five pounds. The incision was made near the linea alba, but its extent is not mentioned. The ligature slipped from the Fallopian tube, after its division, and, in consequence, a great loss of blood took place. Several arteries were then tied; but this not arresting the hemorrhage, a large ligature was passed round the whole stump of the tube, and secured in the most careful manner. Although the woman was much exhausted, she happily recovered, but did not fully regain her health. "This, though the smallest ovarium I have ever extracted," says Dr. McDowell, "was much more troublesome to the patient than in any previous case. Besides experiencing severe lancinating pains in the parts, she was seldom able to discharge her urine without getting almost on her head, in consequence of the tumor falling down into the pelvis, and compressing the urethra."

His *fifth* recorded operation, was performed by Dr. McDowell on the 11th of May, 1819. The patient, likewise a negress, and the mother of one child, was from Lincoln county, in this State, and was supposed by her physician to be laboring under ascites, as the tumor was very large and fluctuating. After having given her hydrogogue medicines for some time without any benefit, Dr. McDowell tapped her, and drew off thirteen quarts of thick, gelatinous fluid. The operation was repeated in two months, and it

was now ascertained, after the matter was all evacuated, that there was a firm substance, of considerable size, which was evidently a dropsical ovary. Some months after this she was again tapped, and the opening was enlarged so as to admit the finger, which was freely used as a probe, that there might no longer be any doubt respecting the true character of the disease. The incision was made on the left side of the median line, down to the tumor, which was found firmly adherent to the parietes of the abdomen and to the intestines, by slender cords, which were easily separated by the hands. The ligamentous bands, attaching the tumor to the uterus, were surrounded by ligatures, after which the tumor was opened, its contents discharged, and the sac extracted. The fluid measured sixteen quarts, and was of a gelatinous character, intermixed with a considerable quantity of hair, and a body resembling very much, in shape, the front tooth of a cow. Violent peritonitis ensued, followed by death on the third day. The uterus and right ovary were perfectly natural, and the ligatures were well applied, and not in a situation likely to injure the adjoining parts.

Dr. McDowell was assisted in this operation by his nephew, Dr. W. A. McDowell, and it was performed in the presence of Drs. Weissiger, Tomlinson, and Horr.

It will thus be perceived that, of these five cases, three were entirely successful; that one recovered, and remained well for nearly five years, when the tumor re-commenced growing; and that one died from peritoneal inflammation within three days after the extirpation of the diseased mass. This success is fully equal to the average success attendant upon ovariectomy in the hands of modern operators. According to the calculations of my friend, Prof. Atlee, of Philadelphia,* founded upon an analysis of upwards of two hundred cases, the rate of mortality for the operation in question is $26\frac{1}{2}$ per cent.

A highly respectable lady, Mrs. O., aged 55 years, of the neighborhood of Nashville, Tennessee, consulted Dr. McDowell, through her professional adviser, Dr. James Overton, in July, 1822, concerning a tumor in the left side of the abdomen, which

* A Table of all the known operations in Ovariectomy, p. 32.—Philad., 1851.

she had first noticed sometime during the previous December. Being a member of a family inclined to corpulency, she paid no particular attention to it for several months, the more especially as it was free from pain and soreness. The enlargement of the abdomen continued to increase gradually, and early in the following May she felt distinctly, on the left side and a little below the level of the umbilicus, a small globular tumor, destitute of sensibility, and movable from side to side, as well as from above downwards. About the middle of June, by which time the swelling had considerably augmented in volume, the patient was seized with pains in the back, hips, and thighs, much resembling the first pains of parturition. By the use of laxatives, warm bathing and anodynes, these symptoms were subdued, and she enjoyed an interval of ease and health, until the latter part of July, when there was a recurrence of the local distress, in a more aggravated form, with great tenderness on pressure. The urinary secretion was natural, both as to quantity and quality, and the uterus appeared to be perfectly sound. No fluctuation could be discovered at this time in the swelling; and the integuments of the abdomen were quite lax, except at the site of the enlargement, where they were very tense.

When Dr. McDowell visited the patient, in the summer of 1822, the tumor filled nearly the whole of the abdomen, and she had the appearance of a female in the sixth month of utero-gestation. The general health was a good deal impaired, from the absence of sleep, and the presence of fever, and there was a sense of weight and dragging in the pelvis, with acute pain in the swelling, perinæum and thighs.

Supposing the disease to consist in a morbid enlargement of the left ovary, Dr. McDowell designed to extirpate it with the scalpel, and for this purpose made an incision from five to six inches in length, along the linea alba, over the most prominent part of the tumor down to the peritoneum. Having laid bare this membrane, he proceeded cautiously to divide it, intending to make an opening sufficiently large to admit of the removal of the diseased organ. In this, however, he was disappointed; for he had no sooner made his first incision through the peritoneum, than there gushed out, in a full stream, a bloody looking serum,

which continued to flow till the sac which had contained it was apparently entirely empty. The quantity thus lost was about one gallon. The edges of the wound were then approximated by several interrupted sutures, light dressings were applied, and the abdomen was encircled by a broad bandage. This constituted the whole of the operative procedure. No attempt was made, or even deemed practicable, to extirpate the diseased organ, inasmuch as it adhered so closely to the peritoneum as to render it impossible to distinguish or separate it from it. Indeed, Dr. McDowell supposed that he was dividing the peritoneum only when the knife penetrated the ovarian sac. The circumstance took him, as well as every one present, by surprise, because it was entirely unanticipated.

The wound continued to discharge matter for sometime after the operation, from the lower extremity of the incision, where a tent was kept for that object. The fluid gradually lost its sanious character, and as it diminished in quantity it assumed more and more the appearance of healthy pus. The wound was entirely healed at the end of about five weeks; and the patient, who lived from fifteen to twenty years after the operation, enjoyed excellent health; nor did she, at any subsequent period, suffer any pain or uneasiness which could be justly ascribed to disease of the ovary, or any other organ connected with the uterus.

The interest of this case is heightened by the circumstance that the late President Jackson, who was a near neighbor of the patient, was present at the operation, assisting in holding her hands, and supporting her resolution.

For the above interesting and valuable details, I am indebted to Dr. James Overton, an eminent practitioner of Nashville, Tennessee, who was present at the operation, and who had charge of the case, both before and after the operation by Dr. McDowell, who visited the patient at her own residence.

For the details of the next case, I am indebted to my venerable friend, Dr. W. C. Galt, for many years one of the most successful and distinguished physicians of Louisville.

The subject of this case was Miss Plasters, of the neighborhood of this city, who was attacked in the winter of 1821, with enlargement and pain of the right ovary. The disease gradually

increased, and in February, 1823, she was tapped for the removal of the contents of the tumor. The dropsical symptoms, however, soon re-appeared, and believing that excision of the affected organ afforded the only chance of permanent relief, her medical advisers, Dr. Galt and Dr. Ragland, requested her to consult Dr. McDowell. I have not been able to obtain any information as to the age of the patient and the size of the tumor; but from a letter written by Dr. McDowell to Dr. Galt, sometime after the operation, I learn that the enlarged viscus filled the entire abdominal cavity, and that out of nine cases that had presented themselves with this disease, up to the period adverted to, that of Miss Plaster appeared by far the most hopeless. Upon her arrival at Danville, she was so extremely debilitated that it was believed she would hardly be able to sustain the shock of the operation.

The patient having undergone the requisite preliminary treatment, the operation was performed on the 12th of May, 1823. An incision was made into the abdominal cavity, extending the whole length of the linea alba. Finding the tumor so large that it could not be removed entire, a free opening was made into it, discharging about six pints of fluid. The morbid mass was then lifted from its bed, though not without difficulty, a ligature having been previously cast round its foot-stalk or uterine attachment. The abdominal cavity having been cleared of blood and water, the edges of the wound were carefully closed, in the usual manner, and the woman put to bed.

The omentum is said to have been much inflamed and thickened, not, as Dr. McDowell supposed, from the effects of the previous tapping, but from organic disease of its own structure. For ten or fifteen days after the operation, there was a bloody putrid discharge from the wound, "which," says Dr. McDowell, "I am well assured could arise from nothing but sloughing of the omentum." *

Notwithstanding her debilitated condition before and for some time after the operation, Miss Plaster entirely recovered. On the 4th of August, less than three months after the removal of the tumor, Dr. McDowell informed Dr. Galt that she was in "perfect health and spirits."

* Letter to Dr. Galt, August 4th, 1823.

In April, 1824, the health of Miss Plasters was so good that she engaged herself to marry in the spring. About this period, however, dropsy of the abdomen set in, rendering it necessary to tap her, and after that Dr. Galt lost sight of her. How long she survived he does not know.

In commenting upon this case, in the letter already referred to, Dr. McDowell holds the following language: "This case proves that appearances in surgery are often deceitful, and that while the taper of life continues to burn, although it be faint, there is yet hope; for Miss Plasters has certainly disappointed most of her friends and all that saw her. My own hopes, at times, were but faint."

"How it is," he continues, "that I have been so peculiarly fortunate with my patients of this description, I know not; for, from all the information I can obtain, there has not one individual survived who has been operated on elsewhere, for diseased ovaria. I can only say that the blessing of God has rested on my efforts." Miss Plasters, it will be remembered, was Dr. McDowell's ninth case.

For the particulars of the following case, in which the operation of ovariectomy was attempted, but not successfully performed, I am indebted to the politeness of Professor Drake, of Cincinnati, who saw the patient both before and after she fell into the hands of Dr. McDowell, and who kept full notes of the symptoms and other circumstances. The operation was witnessed by the husband of the lady, a very intelligent gentleman, who afterwards gave an account of it, in a letter to Prof. Drake, which I have carefully perused.

Mrs. Delano, aged thirty-eight, a native of Kentucky, but now a resident of Chillicothe, Ohio, has been married eight years, but never had any children. She is of a bilious temperament, has always menstruated regularly, and was never sick until five years ago. In the autumn of 1822, she began to be conscious of a fullness in the abdomen, between the hips and ribs, but this was so slight as to escape observation. For a year the local disease made no apparent progress, and her general health was good. In 1823-4-5, she suffered, at intervals, from nausea, colic and attacks of fever. In December, of the latter year, the colic

became constant, and there was great soreness in the sides and limbs. A hard tumor was discovered, about this time, in the right ileo-hypogastric region, which has steadily increased in volume, and now occupies the whole abdominal cavity, from the pubic symphysis to above the umbilicus, reaching outwardly as far as the costal cartilages. It is hard, irregular, slightly movable, and cannot be traced under the ribs. It is somewhat sore on pressure, as well as painful, though less so than formerly. The bowels are usually regular; she lies best on her right side; and she has frequent vomiting, with some cough.

The above memorandum was made, in substance, by Professor Drake, on the 24th of October, 1826; immediately after which Mrs. Delano went to Danville, to consult Dr. McDowell about the propriety of an operation. In the interview which ensued between the parties, "I learned from Dr. McDowell," writes the husband of the lady, "that he had operated for diseased ovaria in nine or ten cases, in eight of which he had been successful. Some of these, I believe, were of that character termed dropsy of the ovary, the tumor consisting of a sac, enclosing a quantity of liquid, gelatinous matter; in the other cases the tumor was solid, and appeared to be composed of a gristly, cartilaginous substance. In every instance, attended with success, the tumor was loose and floating, except in one or two cases, where it was filled with water, which was drawn off, the sac being suffered to remain. In every other case, where the tumor adhered, the attempt to operate was unsuccessful; or, if Dr. McDowell succeeded in extracting the morbid growth, as he probably did in one instance, the patient died." Such, then, appeared to be the information obtained from Dr. McDowell.

I have given the above extract from Mr. Delano's letter, because it shows how often, and with what success, Dr. McDowell had performed this operation, at the time the writer consulted him about the case of his wife. His first case occurred, it will be recollected, in 1809, that is, seventeen years previously to the one under consideration.

From the difficulty, or rather, impracticability of moving the tumor about, Dr. McDowell naturally concluded that it must be extensively adherent. Believing, however, that extirpation was

not impossible, and the lady being anxious to be relieved, an operation was determined upon. An incision was accordingly made, in the usual manner, through the linea alba, and the tumor exposed by separating the peritoneum and omentum, by which it was enveloped. The patient, at this stage of the operation, became so rapidly and excessively debilitated, that apprehensions were entertained for her immediate safety. The tumor, as had been previously conjectured, was found to be extensively and strongly adherent, and its extraction was pronounced impracticable. In about two weeks, the wound was healed, without any material change in the general health.

Dr. Drake visited Mrs. Delano on the 11th of March, 1827, about four months and a half after the operation, and found her excessively emaciated, with swelling of the right leg, and all the symptoms of gradual exhaustion. The cicatrice, from the operation, existed in the linea alba, and was about two inches long. The whole abdomen was excessively protuberant, from the pubic symphysis to the ensiform cartilage. The liver, very hard and greatly enlarged, bulged out high between the short ribs and the umbilicus, over into the left side. Here, in contact with the ovarian tumor, in a kind of groove between them, the colon passed across below the navel. At the centre of the colon was a small, flattish tumor, which felt very hard, and could be moved along the bowel down into the sigmoid flexure. The ovarian tumor filled the right iliac region, and extended, in front, nearly to the umbilicus, crossing the linea alba, and being, seemingly, more prominent on the left than on the right side. It was fixed during respiration, and appeared to be immovable. The liver, on the other hand, obeyed the motions of the diaphragm. Her menses had ceased only about three months ago. Death occurred soon after Dr. Drake's visit; no examination of the body was made.

The gentleman who next undertook this operation, was Dr. Alban G. Smith, of Danville, who executed it successfully, on the 23th of May, 1823, four years after Dr. McDowell's last recorded case.* His patient was a negress, thirty years of age, and the

* North American Medical and Surgical Journal, vol. 1, p. 30. Phila., 1826.

mother of two children: she had labored under enlargement of the ovary for two years. The tumor filled the whole abdomen, and was productive of constant bearing down pains whenever she was in the erect posture. Her general health was pretty good. Dr. Smith made an incision from the umbilicus to within an inch of the pubes; but the tumor was found to be so large that he was obliged, before he could remove it, to let out a portion of its contents. Several pints of "watery matter" having been evacuated, the tumor was raised up, though not without difficulty, and separated at its pedicle, which, together with the Fallopian tube, had been previously surrounded by a strong ligature. The blood having been removed from the abdomen, the edges of the wound were approximated by five interrupted sutures, aided by adhesive strips, a compress and bandage. Care was taken to carry each stitch through the peritoneum. The woman was then put to bed, and took seventy-five drops of laudanum. Becoming soon after sick at the stomach, she took fifty drops more by the mouth, and, in half an hour, two hundred by the rectum. This not allaying the irritation, a suppository of five grains of opium was employed; after which she became composed, and slept an hour. The nausea recurred for several successive days, and on the 27th of May, she had so much pain in the abdomen that it was deemed advisable to bleed her to the amount of eighteen ounces. On the 28th, she lost twelve ounces. On the 29th, the sutures were removed; and on the 25th day, Dr. Smith took away the deep ligature. The tumor was of a scirrhus appearance, and was interspersed with a considerable quantity of bony substance.

From this time on until April, 1848, a period of nearly a quarter of a century, ovariectomy does not seem to have been performed in Kentucky. During this year, my distinguished friend, Dr. Henry Miller, Professor of Midwifery in the University of Louisville, attempted the operation, and was blessed with a most brilliant result.* The patient, Mrs. McLaughlin, a married woman, aged thirty-seven, from the State of Indiana, had a large tumor in the right side of the abdomen, of an irregularly globu-

* Western Journal of Medicine and Surgery, Third Series, vol. 2, p. 38. 1848

lar shape, and of variable consistence, which she first noticed in the autumn of 1837, in the right iliac region. On the 29th of March, Dr. Miller punctured the tumor with a trocar, in the linea alba, about three inches below the umbilicus, and drew off six quarts of a whitish, albuminous fluid. The operation, which was not followed by any unpleasant symptoms, had the effect of rendering the abdomen quite flaccid on the left side, but made only a very slight impression upon the right, especially the iliac region, which remained hard and unchanged in shape. The woman, at this time, was considerably emaciated, her appetite was poor, and her pulse betokened a hectic, irritable condition of the system.

The operation of excision, at which I had the honor to assist, was performed on the 6th of April, the patient being under the influence of chloroform. An incision was made along the linea alba, from the umbilicus to the pubes, but this being found to be too small to admit of the escape of the tumor, two of the largest cysts were punctured to diminish its size, and facilitate the extirpation. The fluid thus evacuated resembled that which had been drawn off by tapping, a week previously; but its quantity could not be clearly estimated, as it was suffered to run over the table upon the floor. Some adhesions existed between the morbid growth and the omentum and walls of the abdomen, which were carefully broken up, when the tumor was raised out of its bed, and supported upon the hand, while its pedicle was surrounded by a strong ligature passed through the broad ligament and tied round the Fallopian tube and ligament of the ovary: the connection was then severed by the knife. Finding that the vessels of the outer extremity of the broad ligament were bleeding quite freely, another ligature was passed around it, with the effect of at once arresting the hemorrhage. The cavity of the abdomen being cleared of blood and ovarian fluid, the edges of the incision were closed by interrupted sutures and adhesive strips, the whole being supported by compresses and a bandage. The ligatures were brought out at the inferior angle of the wound.

No untoward symptom occurred after the operation, with the exception of some vomiting during the first night. The sutures were removed on the 19th of April; and on the 25th one of the

ligatures came away; the other was detached on the 7th of May, at which time the wound was firmly closed, except a small point at the inferior angle. The next day the woman left Louisville, to visit her friends at New Albany.

The tumor, notwithstanding the tapping and the puncture of two of its cysts, at the time of the operation, weighed nine pounds and a quarter. It was composed of numerous cysts, of variable dimensions, filled with white, ropy, albuminous matter, and having strong, thick parietes, with smooth, polished linings.

The next case of ovariectomy occurred to myself, in June, 1849, in the person of a young lady, of this city, aged twenty-two years. Her general health had always been good, until within a short time of the operation; she had menstruated regularly, and had never experienced any serious illness. The tumor, when first perceived, in the winter of 1848, was quite small, and occupied the lower part of the abdomen, being perfectly movable and free from pain. It continued steadily to increase in size, at first gradually, and afterwards rather rapidly, until the following autumn, when it was so large as to occasion great inconvenience by its weight and bulk, as well as by its pressure upon the diaphragm and abdominal muscles. I first saw the young lady, on the 11th of May, 1849, along with Dr. Knight and Professor Miller, who kindly afforded me their aid and advice throughout the case. The tumor, at this time, was partly fluid and partly solid, smooth and uniform on the surface, and entirely devoid of pain and tenderness on pressure. The general health was still good, though Miss D. was considerably emaciated.

On the 5th of June, I introduced a trocar, and drew off three gallons of a thick, ropy, drab-colored fluid, readily coagulable by heat, alcohol and acids. The operation was followed by great relief, but as the water soon began to re-accumulate, it was deemed best to resort to excision. Accordingly, on the 19th, an incision was made along the linea alba, extending from near the pubes to three inches above the umbilicus, being at least one foot in length. The tumor was very red and vascular upon its surface, and extensively adherent, inferiorly, by bands of false membrane, which, however, were easily severed by the hand. The pedicle, which was quite narrow, was surrounded by a stout lig-

ature and divided, when the morbid growth was lifted from its bed. Although the ligature had been tied with great firmness, it immediately slipped off after the part was tied, thus necessitating the application of another. Previously, however, to doing this, a large artery, included in the pedicle, and bleeding freely, was secured separately. The blood being removed from the peritoneal cavity, the ligatures were brought out at the inferior angle of the wound, the edges of which were next approximated by nine twisted sutures, the needles being carried through the muscular fibres, about one inch and a quarter from each other. The dressing was completed with ising-glass plaster, a compress and bandage.

On the 27th, that is, eight days after the operation, the wound was found to have united, throughout, by the first intention; the bowels moved spontaneously, and every thing portended a happy issue. On the 8th of July, however, in consequence, apparently, of exposure to damp and heavy draughts of air, occasioned by a change in the weather, the patient was seized with a severe chill, followed by excessive prostration. Means were immediately employed for producing re-action, but several hours elapsed before she completely rallied, and she never was well afterwards. It was but too evident that peritonitis was doing its work, and that, notwithstanding the use of blisters and appropriate internal remedies, the case must terminate fatally. Miss D. lingered until the 17th of July, nearly one month after the operation, when she expired.

The dissection, performed by my friend, Dr. T. G. Richardson, Demonstrator of Anatomy in the University of Louisville, proved the correctness of our diagnosis. The peritoneum was literally one mass of disease; the bowels and pelvic viscera were closely matted together; and the abdominal cavity was divided into not less than three distinct compartments, two of which contained each about half a gallon of turbid serum, mixed with shreds and flakes of lymph.

The tumor consisted of a single sac, weighing about nine pounds, and being nearly twelve inches in length, by eight in breadth. Its walls were fully one inch in thickness, and bore a very close resemblance to those of the gravid uterus.

In the following case the operation was performed in Septem-

ber, 1849, by Dr. G. W. Bayless, formerly of Louisville, and now of Missouri.

His patient, Mrs. Dreddeu, was 31 years of age. She was always thin and spare and of delicate constitution, and was married twice, namely, at sixteen and nineteen. Seven years before the operation, the tumor made its appearance on the left side. It grew but slightly for two years; at the end of which time the abdomen began to enlarge, and she was treated by internal remedies for ascites. Three years and a half before the operation Drs. Sharpe and Duke, of Maysville, undertook the management of the case, when they found the abdomen greatly distended. They tapped her, and for the first time the nature of the disease was ascertained. A large immovable tumor was found extending from the left iliac to the left hypochondriac region, with one of smaller size on the right side.

From the first tapping, in February, 1846, to the time of the operation, Dr. Sharpe punctured the tumor seventeen or eighteen times, at intervals of about twenty-five days; removing about six gallons of fluid at each operation. Generally, acute pains and soreness throughout the abdomen followed the tapping; and about the fourteenth or fifteenth operation, quite a severe peritonitis supervened. In this and all other occasions the symptoms were checked by calomel and opium.

The above facts are stated with a view of showing the cause of a serious difficulty in the operation, namely, the very strong adhesions around the tapping point, and the universal attachments of the tumors to the abdominal walls, increased in extent and firmness by the inflammation which obviously followed the use of the trocar.

Early in September, 1849, when Dr. Bayless first saw the case, the abdomen was greatly distended, but the tumors, in extent and irregularity of surface, could be easily distinguished through its attenuated walls. The usual embarrassment to respiration and other attendants upon so large an accumulation were present. The patient was sallow, feeble, and quite emaciated. Manifestly, the powers of life were about to give way. She so regarded the matter; and after a fair representation of the danger of the operation and the chances of recovery, she calmly, and even with

cheerfulness desired that it should be done. The same composure and cheerfulness were exhibited throughout.

On the 13th of September, 1849, with the assistance of Drs. Sharpe and Duke, and in presence of several other physicians and students, the operation was performed. No other preparation of the patient was employed, except a free evacuation of the bowels the night before. About 9 o'clock in the morning she was tapped, when six or eight gallons of yellowish serum, mixed with flakes of lymph, were drawn off. No perceptible exhaustion followed, and in fifteen or twenty minutes the extirpation was proceeded with. Chloroform was administered, but the patient soon began to resist its use as exceedingly unpleasant; she became quite excited and unmanageable, and it was therefore withdrawn. At first the operation was embarrassed by this circumstance, but as soon as the effects of the chloroform subsided she became calm.

An incision, which, in the distended state of the abdominal walls, was about ten inches in length, was made along the linea alba, from the umbilicus to the pubes. On penetrating the abdominal cavity, a confused abnormal mass presented itself, adhering all around the edges of the incision. The attachments varied in firmness in different parts: the longest were around the tapping point, and in the left side and cavity of the pelvis. The mass was separated from its connexions by means of the fingers, the handle of the scalpel, and edge of the knife. There was no difficulty in detaching the tumor from the abdominal walls, but its bulk, and the constant discharge of fluid from the main sac, at the opening made by the trocar, rendered the other steps of the operation tedious and embarrassing. The pelvic cavity was completely impacted with a firmly adherent mass. Part of the separation here had to be done with the knife; and from the form of the excavation, the bulky, slippery mass, and the relations of the large vessels and nerves, the task was very difficult. In the course of the dissection an artery of some size was cut, regarded at the time as the right ovarian. It was secured at once by ligature; the only one used on account of hemorrhage. There was no distinct pedicle on either side, to guide in the application of a ligature. It was

all a confused mass; and hence the artery was cut *before* the application of the ligature.

There was an adhesion also of the back part of the large tumor to the mesentery, so firm that it was regarded as unsafe to tear it away with the finger, or handle of the knife, for fear of lacerating the mesenteric vessels.

No other difficulty presented itself in the operation. The patient was much exhausted towards the close, but was sustained by stimulants until its completion, and rallied soon after the dressing.

After the abdominal cavity and its viscera were thoroughly cleaned of blood and other fluids, the edges of the incision were brought together and secured by a number of twisted sutures and adhesive strips. The ligature mentioned as cast round the ovarian artery was brought out just above the pubes. Large compresses were required on the abdomen to fill up the depression before a bandage could be applied, to restrain the motion of the abdominal walls in respiration.

The morbid growth was multilocular in its character. The parent tumor, ovoidal in shape, was about fifteen inches in its long, and ten inches in its short diameter. There were a number of smaller tumors, varying in size from six to eight inches down to half an inch in diameter, all adhering together. Most of them were attached to the outer walls of the parent tumor and to those of secondary size; others, of smaller size, were found springing from the inner surface, and showing themselves in the cavity of these. They all contained a yellowish, ropy serum, mixed with more or less lymph. The walls of the tumors varied in thickness from the third of an inch down to a line, according to their magnitude. The parent tumor was entirely evacuated in the course of the operation; and some of the smaller ones, were also ruptured. Most of the latter however, were preserved with their contents; and, in this condition, the entire mass weighed eighteen pounds.

The patient after the operation remained calm throughout the day; but early next morning vomiting and straining ensued, and continued, at intervals, for nearly forty-eight hours. The vomiting gradually ceased, apparently uninfluenced by any means that

were used. During and following the vomiting there were sharp pains through the abdomen; and the pulse was considerably accelerated. The symptoms, however, did not indicate any active inflammation; and as similar phenomena had often been controlled by Dr. Sharpe, after tapping, by means of calomel and opium, this combination was resorted to, followed by their removal in three days.

At the first dressing of the wound, four days after the operation, a sero-sanguinolent fluid was discharged at the opening through which the ligature hung. Except at this point, the edges of the wound were adherent. This discharge continued for seventeen days. On the 20th day it began to abate, and give place to healthy pus, which was regarded as coming from the pelvic cavity, since the quantity was too large to proceed from the unhealed walls around the small opening for the ligature. On the 30th day from the operation, the discharge of pus had nearly ceased. The needles were all removed at the end of three weeks. The ligature, however, notwithstanding frequent tractions, could not be brought away.

Dr. Bayless saw the patient nearly six months after the operation, apparently in good health, and attending to her domestic duties as cooking, washing, &c. The ligature still remained. On pulling at it, it seemed to have a weight attached to it, which subsided when the traction ceased. It was inferred that the ligature had been applied to the artery pretty near the uterus, including a portion of the broad ligament, and that it was this organ which felt as if suspended to the ligature. It ultimately came away at the end of eleven months. The patient remains well up to the present moment.

The last operation of ovariectomy in Kentucky, so far as my information enables me to determine, occurred on the 7th of September last, in the practice of Dr. W. S. Chipley, of Lexington, one of the vice-presidents of this association, who has kindly furnished me with the particulars.

The subject was a negress, aged 36 years, fifteen of which she had been married, though childless. Her menstruation had always been regular, and unattended by any abnormal symptoms. Her general health had always been good. Five years ago a

small tumor was felt in the left iliac region; it was of slow growth, and for sometime gave no other inconvenience than some pain in the right side. In 1849, when Dr. Chipley first saw her, she was suffering severely, having suppression of urine and enormous distention of the bowels, with great pain in the left iliac region. Similar attacks, with great uniformity of symptoms, occurred from time to time until last August, when a sudden and wonderful increase of the swelling was discovered. It had evidently acquired greater magnitude during the preceding four months than in the last five years.

An operation having been determined upon, Dr. E. L. Dudley made an incision along the linea alba, from a point just below the umbilicus nearly to the pubic symphysis. The hand being introduced into the wound, the adhesions were found to be so extensive as to preclude the possibility of removing the tumor, which filled almost the whole cavity of the abdomen, and dipped largely into the pelvis. Notwithstanding the size of the morbid growth and the extent of its attachments, every exploration prior to the operation afforded the most flattering prospect of the practicability of its removal. Its mobility seemed to indicate only very slight adhesions. When it became evident that the tumor could not be exsected, a trocar was plunged into it, but not a drop of fluid escaped; it was a firm fibrous mass. The wound was secured by the interrupted suture, adhesive strips, compress, and bandage.

The patient improved until about the 20th; the wound apparently healing kindly. Next day she was in considerable pain; the abdomen was tender and distended, and the pulse at 180.—On removing the dressing an abscess was found at the upper angle of the incision; the matter was discharged, the unfavorable symptoms rapidly subsided, and in a few days the pus ceased to flow. The woman continued to improve, and gradually regained the health which she had enjoyed previously to the operation.

In dismissing the subject of ovariectomy, I cannot refrain from offering a brief sketch of the life and services of the "father of this operation." Such a course will not, I am sure, be regarded as irrelevant by the members of this association, whose desire it should be, as I know it is, to collect and treasure up all information calculated to illustrate the history of the great men of the profession in Kentucky. The exploits of her physicians and surgeons—her men of science and of letters—should be engraved in gilded capitals upon the entablature of her cemeterian columns, side by side with those of her warriors and statesmen. They form a part, a proud part, of her greatness, and serve as an appropriate heritage to those who are to come after us. If a Commonwealth may be proud of a citizen who adds to her resources a blade of grass, or a grain of wheat, how much more proud should she be of her medical men, whose province it is to preserve the health and lives of her subjects.

The *facts* which I am about to present in regard to the personal and professional history of Dr. Ephraim McDowell, were furnished me, at my request, by his brother, Col. Joseph McDowell, of Danville; by his son, Wallace W. McDowell, Esq., of the same place; and by his nephew, pupil, and partner, Dr. William A. McDowell, formerly of Louisville, now of Evansville, Indiana. The only regret I have is that the materials are so scanty and incomplete.

Dr. McDowell was born in Rockbridge county, Virginia, on the 11th of November, 1771. His father, Mr. Samuel McDowell, was for many years a member of the legislature of that State, and appears to have been a man of great popularity in his district. In 1782, he was appointed, along with Mr. Caleb Wallace, and Dr. Flemming, by the legislature of Virginia, a commissioner to settle the land claims of the territory of Kentucky, and entered immediately afterwards upon the discharge of the duties of his onerous and responsible office.

The following year he moved his family to Kentucky, and settled near Danville, where he lived till the time of his death in August, 1817. During his residence here he was appointed a judge of the District Court of Kentucky, and, along with his

associates, Judge Wallace and Judge Muter, assisted in organizing the first court at Danville, which was also the first court ever formed in the district or territory of Kentucky. He remained upon the bench until within a few years of his death.

In January, 1755, Judge McDowell married Miss McClung, of Virginia. The result of this union was twelve children, of whom Ephraim, the subject of this sketch, was the ninth, and the only survivor of whom is Colonel Joseph McDowell, of Danville.

When scarcely two years of age, Ephraim McDowell was brought by his parents to Kentucky. It is not known when he began to go to school; but we are told that he was educated by two gentlemen by the name of Worley and James, who conducted a classical seminary, first at Georgetown, and afterwards at Bardstown. What proficiency he made under the tuition of these teachers, or how long he remained under their instruction, I am not informed. The probability, however, is that he never made any great progress in his classical studies, and that he had but little taste for this kind of pursuit. The few brief articles which he contributed to the medical journals, after he had attained to professional eminence, clearly indicate that his early education was defective. His brother, Col. Joseph McDowell, referring to this period of his life, remarks that Ephraim was a boy of studious habits, and of a mild disposition.

Soon after leaving school, Mr. McDowell entered upon the study of medicine, his preceptor being Dr. Humphreys, of Stanton, Virginia, a graduate of the University of Edinburgh. He read with Dr. Humphreys from two to three years, when, without having, so far as I can learn, attended any lectures in Philadelphia, at that period the only seat of medical education in the United States, he went to Scotland, to avail himself of the facilities afforded by the celebrated school at the capitol of that country. He was a member of the medical classes of the University of Edinburgh, for the sessions of 1793 and 94. This institution was at that time at the very zenith of its renown, attracting pupils from all parts of the civilized world, and overshadowing every other medical school in Europe. We may well imagine with what interest and delight the young and ardent Kentuckian, thirsting

after knowledge, drank in the waters of science as they gushed forth from the eloquent lips of a Gregory, a Black, and a Monro, men whose fame was upon the tongue of every medical student and physician in Europe and America. We may suppose, too, that, amid the novel scenes which surrounded him, his mind often reverted to his native country, lamenting its deficiencies for the acquisition of a sound medical education, and regretting, perhaps in bitter terms, the time which he had spent, to so little purpose, in the office of his Stanton preceptor. We may imagine, moreover, that one just fresh from the wilds of America must have felt no little restraint, and even embarrassment, in the polished and refined circle of students in the modern Athens. His principal friend and companion, during his attendance upon the Edinburgh school, was Dr. Samuel Brown, afterwards the elegant and accomplished professor of the Theory and Practice of Medicine in Transylvania University, and brother of the Hon. James Brown, our Minister at the Court of France. Of his mode of living and his habits of study, while at this far-famed institution, unfortunately nothing is known. His nephew, Dr. William A. McDowell, who was intimately acquainted with his whole history, states that the surgical lectures at the University were not satisfactory to him, and that, in consequence, in his second year, he took a ticket to the private course of the celebrated Mr. John Bell. I am not certain who delivered the surgical lectures at that period in the University; probably they were given jointly by Mr. Monro, the second, and Dr. Russell, the latter of whom was always regarded as a great bore by his classes; while the former, although more sprightly and animated, was very dull and prosy in comparison with John Bell, whose enthusiasm and ardor were absolutely boundless.

It is difficult to conceive, at this distant day, the charm which this great teacher infused into his subject, and the ambition which he inspired in his pupils. All loved him; many worshipped him; not a few idolized him. Among the latter was the subject of this memoir. During his attendance upon his prelections, the young American was enraptured by the eloquence of his teacher, and the lessons which he imbibed, while thus occupied, were not lost upon him after his return to his native coun-

try. Mr. Bell is said to have dwelled with peculiar force and pathos upon the organic diseases of the ovaria, speaking of their hopeless character, when left to themselves, and of the possibility, nay practicability, of removing them by operation. The instruction thus given, made a powerful impression upon Dr. McDowell, which, as has been already stated, was not lost upon him after he took his leave of the academic groves of Edinburgh.

I am not able to say, from the facts before me, whether Dr. McDowell was graduated at Edinburgh or not. His brother, Col. McDowell, states that he was, and in this opinion he is joined by his son, as well as by his nephew, Dr. William A. McDowell. My belief that he did not take a degree in Scotland, is based upon three facts; first, that no diploma of the kind has been found among his papers; secondly, that Dr. Samuel Brown, his class-mate at Edinburgh, solicited him, after he had attained to eminence in his profession, to permit him and his friends to draw up an account of his cases of ovariectomy, in Latin, in order that it might be sent to Edinburgh, to secure him a degree; and, thirdly, that in 1825, the University of Maryland conferred upon him the honorary degree of Doctor of Medicine; a circumstance which would hardly have happened had he been a regular graduate. Be this as it may, the fact that he was or was not a graduate, ought not, in the slightest manner, to derogate from his character as a professional man, especially when it is recollected how much more difficult it was then than it is now to obtain a degree in medical schools.

I have already stated that Dr. Samuel Brown was a classmate of Dr. McDowell, at Edinburgh. When Dr. Brown returned to the United States, he was asked, one day, by some of his friends, what he thought of Dr. McDowell, as a man of talents, and a close, assiduous student, it being supposed, from his intimacy with him, that he was able to pronounce a correct judgment. His reply was, "Dr. McDowell went to Edinburgh a goose, and returned a gander." It is much to be regretted that we have not more birds of the same kind. It is greatly to be feared that many, if not most, of the young men who visit Europe at the present day, to improve themselves in their medical studies, go

there as geese and return as geese. The name of Ephraim McDowell is immortal.

After a residence abroad of about two years, during which he stored his mind with a large amount of valuable information, Dr. McDowell returned to Kentucky, in 1795, and settled at Danville, the scene of his future labors. He immediately entered upon his professional career, nor was he slow in acquiring business. The fame of his foreign tour had preceded him, and served to introduce him into practice. It was known that he had been a student of John Bell, one of the most celebrated surgeons of the age, and that he had devoted himself, with special assiduity, to the study of anatomy and surgery, during his sojourn in Scotland. The consequence was that patients soon flocked to him, at first, from the neighborhood, and subsequently, from all parts of the South-west, for his aid and advice. Those who were unable, on account of the peculiarity of their ailments, or the roughness of the roads, to come to him, he visited at their own homes, often remaining with them several days, or, when the case was unusually urgent, even a week or two. All the important operations that were required for hundreds of miles around, were performed, for a number of years, exclusively by him. At that time he was almost the sole occupant of the field of surgery in the West.—Dr. Dudley, since so celebrated for his surgical exploits, had not yet commenced his professional studies, and none of the larger towns of Kentucky had any surgeons of distinction, or even ordinary capacity. The only exception, probably, to this statement, was Bardstown, the residence of Dr. Brashear, who, early in the present century, performed the first successful amputation at the hip-joint in the United States, and who enjoyed for sometime considerable reputation as an operator in Nelson, and the adjacent counties. Dr. Brashear, however, was scarcely a competitor of Dr. McDowell, or if he was at any time, he did not long continue to be; for, soon after the achievement above alluded to, and while he was still a very young man, he abandoned his profession, and moved to Louisiana, where he engaged in planting, even then a lucrative and respectable pursuit. Cincinnati, too, was at that time, and, indeed, for a long period afterwards, without a surgeon of any respectability or eminence. Thus, as I have

already stated, Dr. McDowell was, for a number of years, in the undisputed possession of the surgical field, not only of Kentucky, but of the entire South-west. How well he cultivated this field, what honor he conferred upon his adopted State and upon the country generally, is too well known to require any comment in this place.

In 1802, in the thirty-first year of his age, Dr. McDowell married Miss Sarah Shelby, a young lady of great personal beauty and excellence, and daughter of Gov. Shelby, one of the most distinguished citizens of Kentucky. The result of this alliance, which greatly augmented his happiness, was eight children, only three of whom survive. Mrs. McDowell died at Danville only a few years ago.

Dr. McDowell had practised medicine and surgery for fourteen years, and had secured for himself a large share of reputation for his bold and successful exploits, when, in the autumn of 1809, he was consulted by Mrs. Crawford, the subject of a large ovarian tumor, whose case has been already presented to your consideration, and which, from its novelty and attendant circumstances, must forever remain memorable in the annals of our profession. After a most thorough and critical examination of the case, Dr. McDowell informed his patient, a woman of unusual courage and strength of mind, that the only chance for her relief was excision of the diseased mass. He explained to her, with great clearness and fidelity, the nature and hazard of the operation; he told her that he had never performed it, but that he was ready, if she were willing, to undertake it, and to risk his reputation upon the issue, adding that it was an experiment, but an experiment well worthy of trial. Mrs. Crawford listened to the surgeon with great patience and coolness, and at the close of the interview, promptly assured him that she was not only willing, but ready to submit to his decision; asserting that any mode of death, suicide excepted, was preferable to the ceaseless agony which she was enduring, and that she would hazard any thing that held out the most remote prospect of relief. The result has been long before the profession. Mrs. Crawford submitted to the operation, and thus became the first subject of ovariectomy, of whom we have any knowledge.

It has been already seen that Dr. McDowell, during his residence at Edinburgh, attended the surgical lectures of Mr. John Bell, who took special pains to direct the attention of his pupils to the diseases of the ovaria. It is not improbable that the young Kentuckian, while listening to the teaching of the ardent and enthusiastic Scotchman, determined in his own mind to extirpate these organs in the first case that should present itself to him after his return to his native country. The subject had evidently made a strong impression upon him, and had frequently engaged his attention and reflection. He had thoroughly studied the relation of the pelvic viscera, in their healthy and diseased conditions, and felt fully persuaded of the practicability of removing enlarged ovaria by a large incision through the walls of the abdomen. He knew very well that the Cæsarian section had been repeatedly performed with success, and he could perceive no reason why ovariectomy should be attended with more difficulty to the surgeon, or greater hazard to the patient.

When Dr. McDowell undertook this operation, he was not aware that it had ever been performed by any one else, a precedence, which certain writers have attempted to prove. In speaking of his first case, he distinctly states that he had "never seen so large a substance extracted, nor heard of an attempt, or success attending any operation, such as this required."* Nor was such an operation ever performed before. From all the testimony that I have been able to collect upon the subject, I am satisfied that it was first executed by Dr. McDowell.

Until I had carefully investigated this matter, I was of the opinion, in common with many others, both in this country and in Europe, that a foreign surgeon, L'Aumonier, of Rouen, had anticipated our countryman in this bold and daring undertaking. The attempt to remove this organ is said to have been made by this gentleman as early as 1776. Upon inquiry, however, I find that this was not the fact, and that the case upon which he operated was one merely of abscess of the ovary, consequent upon parturition. There was, of course, no necessity here for extirpation; all that was done by L'Aumonier was to puncture the

* Eclectic Repertory, vol. 7, p. 242. Phila., 1817.

abscess, to give vent to its contents. He never dreamed of excising the organ, and it is surprising that Dr. John Mason Good and other learned authors should ever have referred to the case as one of ovariectomy.

Equally unfounded, in this respect, are the claims of Professor Dzondi and of Professor Galenzowski, whose names precede that of Dr. McDowell, in the elaborate and valuable table of ovariectomy, by my friend, Dr. Washington Atlee, of Philadelphia, himself so distinguished in this department of surgery. In a work published by the former of these writers, at Halle, in 1816, entitled, "*Beitragte Zur Vervollkummung der Heilkunde*," or, Contributions towards the Improvement of the Healing Art, is an account of a pelvic tumor, in which a cure was effected by drawing out the cyst through an incision in the wall of the abdomen, and, after inducing mortification in it by means of long tents, extracting it piece-meal with a pair of broad forceps.* The tumor thus treated, however, was not ovarian, nor was the patient a female, but a lad; twelve years of age, of the name of Christopher Shultz, who had a circumscribed tumor as large as his head, in the hypogastric region. Dzondi relates other examples of a similar nature, relieved by the same mode of management, and he expresses the opinion that this operation might be resorted to with equal success in ovarian dropsy, provided the sac is situated superficially, and is not affected with ulceration or scirrhus. It is difficult to conceive how such a case could ever have been adduced as one of extirpation of the ovary, the more so, when it is recollected that the author himself never advanced such a claim.

The case of Galenzowski, of Wilna, was also one very different from extirpation of the ovary. But this is not all; his operation was not performed until March, 1827, eighteen years after Dr. McDowell's now celebrated operation upon Mrs. Crawford. The tumor, in the case in question, was multilocular, of large size, and so firmly and universally adherent to the posterior wall of the abdomen as to render its total extirpation impracticable. Galenzowski, therefore, made a large incision into its cavity,

* American Medical Recorder, vol. 3, p. 62.

according to the method of Le Dran; and then, passing his fingers into it, he tore up its cells, evacuated its contents, and secured the sac with a ligature to the external wound, to prevent the possibility of peritoneal effusion. On the thirty-second day a piece of the sac was found in the dressings; another was discharged on the fifty-second day; and, finally, a third on the sixty-second. The patient was discharged on the seventieth day, having only a small fistula in the hypogastric region.

The particulars of Galenzowski's case, are contained in the twelfth volume of Graefe & Walther's *Journal der Chirurgie*; and in a translation of his paper, originally published in Latin, in the ninth volume of the North American Medical and Surgical Journal, issued at Philadelphia, in 1830. An abstract of it will also be found in Malgaigne's Operative Surgery, by Brittan, p. 391, Philadelphia, 1851, and in the *Dictionnaire de Médecine*, T. 22, p. 592, Paris, 1840.

In consequence of the novelty of Dr. McDowell's operations, and of the loose manner in which they have been drawn up for publication, an attempt was made by certain writers, both in this country and in Europe, to deny their authenticity, and to cast discredit upon the author's veracity. Among the various detractors who busied themselves in this way, no one was more loud and clamorous than Dr. James Johnson,* the editor of the London Medico-Chirurgical Review, a periodical well-known in the United States. In speaking of Dr. McDowell's first case, he remarks: "Dr. Mac. visited the patient at the end of five days, though she had come to his own residence to have the operation performed!! He found her engaged in making her bed! She soon returned to her native place quite well. *Credat Judæus, non ego.*" In adverting to the second case, the reviewer says, "we cannot bring ourselves to credit the statement." We have already seen that Mrs. Crawford, the subject of the first operation, performed in 1809, and so sneeringly spoken of by Dr. Johnson, survived until a few years ago; and that the authenticity of the second, concerning which he expresses so much incredulity, is equally well established.

* Eclectic Repertory, vol. 7, p. 242. Philadelphia, 1817.

In a subsequent article upon this subject, published in October, 1826, the same writer indulges in the following language: "A back settlement of America—Kentucky—has beaten the mother country, nay, Europe itself, with all the boasted surgeons thereof,* in the fearful and formidable operation of gastrotomy with extraction of diseased ovaria. In the second volume of this series, page 216, we adverted to the cases of Dr. McDowell, of Kentucky, published by Mr. Lizars, of Edinburgh, and expressed ourselves as sceptical, respecting their authenticity. Dr. Coates, however, has now given us much more cause for wonder at the success of Dr. McDowell; for it appears that out of five cases operated on in Kentucky by Dr. M., four recovered after the extraction, and only one died. There were circumstances in the narratives of some of the first three cases that raised misgivings in our minds, for which uncharitableness we ask pardon of God, and of Dr. McDowell, of Danville." Such language needs no comment; it speaks for itself, for it carries with it its own condemnation of the man who uttered it. When the learned, caustic, and ungenerous editor of the *London Medico-Chirurgical Review* indited it, he was ignorant—perhaps, wilfully ignorant—of the fact, that he was slandering the father of ovariectomy, and speaking sneeringly of a State that has given birth to the first lithotomist, and the first American statesman of the nineteenth century.

But it need not surprise us that Dr. McDowell's cases of ovariectomy should have been treated with contempt abroad, when attempts were made to discredit them at home. What effect these attempts exerted upon the professional mind of the United States, it would be useless, at this remote day, to enquire; suffice it to say, that they aroused the assailed party to a sense of self-defence, and the publication of additional cases, confirmatory of those that had previously appeared in the *Eclectic Repertory of Philadelphia*.

It would seem that Dr. McDowell kept no notes of any of his cases, and that he was prevailed upon, with the greatest difficulty, to publish an account of the first three cases in the *Eclectic*

* *Medico-Chirurgical Review*, for January, 1825, p. 216.

Repertory. His nephew, Dr. John A. McDowell, states that he had to urge, among other inducements, the debt of gratitude which his uncle owed to Mr. John Bell, and his obligation to compliment that celebrated surgeon with an exhibition of the exploits of his pupil, in the execution of an operation, the practicability of which he had been at so much pains to teach in his lectures. This appeal had more weight in deciding Dr. McD. than any thing else that could be urged. He finally drew up an outline of his cases, referring to his ledger for his dates, and to his memory for the facts. They were not written out with sufficient minuteness and precision; but they had, at least, two capital merits—*truthfulness and brevity*. A copy of the paper, with a letter of acknowledgement, was forwarded to Mr. Bell, but this he never received. He was absent at the time, traveling on account of his health in Italy, whence he never returned alive. The paper subsequently fell into the hands of Mr. Lizars, who published it, seven years afterwards, in the thirty-second volume of the Edinburgh Medical and Surgical Journal, in consequence of an attempt which he made to ovariectomize a female, to the peril of her life, who was found to be afflicted only with abdominal obesity.

Another copy of these cases was sent, in the autumn of 1816, to Dr. Physick, of Philadelphia, with a request that, if found worthy, he should have them published in some Medical Journal. It is not known whether the "Father of American Surgery" ever read the paper, or investigated the nature of the operation which is described; certain it is, he never took any notice of it either to Dr. McDowell, his pupils, or any one else. He had no time to bestow upon the subject, or the subject was unworthy of his attention. He might have thought the author of the paper a backwoods imposter, or a man who was speaking from Buncombe.

Dr. William A. McDowell, who was the bearer of the above dispatch, was more successful in his interview with Dr. James, the modest, amiable, and benevolent Professor of Midwifery, in the University of Pennsylvania. This gentleman had been in the habit of depicting to his pupils, with every revolving lecture term, and in the most harrowing language, the fatality and utter

hopelessness of all attempts, past, present, and to come, to cure organic disease of the ovaria by operation. He seized with avidity the intelligence communicated to him by the younger McDowell, and immediately requested an account of the cases for publication in the *Eclectic Repertory*, of which he was then one of the editors. He also read the cases to his class, who received them with the most rapturous applause.

The publication of the cases in the *Eclectic Repertory* received but little attention. Indeed, so far as could be ascertained, it encountered general incredulity, if not positive ridicule. The paper of Mr. Lizars, in the *Edinburgh Medical and Surgical Journal*, met with a better fate; for it at once attracted marked attention, and produced strong excitement throughout the medical circles of Europe; a circumstance which reacted with electrical force and rapidity upon the United States. The question of the reliability of the reported cases, was at once thoroughly investigated and established, and the operation has since been repeatedly performed with success in nearly all parts of the civilized world. Ovariectomy is now one of the established operations of surgery; and for this boon our profession and mankind are indebted to Dr. Ephraim McDowell.

It is not positively known, even to his most intimate surviving friends, how often Dr. McDowell performed the operation of ovariectomy. Dr. William A. McDowell, who was a member of his family nearly seven years, five as a student, and nearly two as a partner in practice, states that up to the period of his removal to Fincastle, Virginia, in 1820, his uncle had had seven cases, all, save one, successful. Six of these operations Dr. McDowell witnessed, and in two he handled the knife under Dr. Ephraim McDowell's direction. "I acted," he modestly adds, "in the capacity, as I conceived, of a sort of an amanuensis." "In his first operation," continues this gentleman, "in 1809, Dr. James McDowell, who was Dr. Ephraim McDowell's nephew, partner, and brother-in-law, and a young man just commencing practice, used the knife under similar circumstances, as it respects the external incision. Dr. Ephraim McDowell had, at the time, determined to decline practice in favor of Dr. James McDowell. The death of the latter occurring shortly afterwards, changed the

arrangement. Under the same circumstances, Dr. A. G. Smith, who succeeded me as a partner to Dr. McDowell, operated in two or three cases."

Dr. William A. McDowell informs me that he has reason to believe, from reliable testimony, that his uncle performed this operation altogether thirteen times, exclusive of the cases of Dr. Smith. He states that he is himself cognizant of two more successful cases; one, that of Mrs. Overton, of Tennessee, and the other, that of Miss Gilmore, of Pulaski county, Kentucky; making in all, eight cures, respecting which there can be no mistake. Dr. McDowell's success does not seem to have been so great in his latter, as in his earlier operations, but the precise ratio cannot now, unfortunately, be ascertained.

It may not be improper to state, in concluding the consideration of this part of Dr. McDowell's professional services, that an attempt was made, many years ago, to deprive him of the credit of his first operation, by ascribing the performance of it to his nephew, Dr. James McDowell, at the time his partner in practice. In consequence of this attack upon his veracity and pretensions to surgery, Dr. McDowell was induced, in 1826, to address a printed card to the "physicians and surgeons of the West, and particularly, to the medical faculty and class at Lexington," in vindication of his claims. After remarking that he had visited Mrs. Crawford, the subject of the operation in question, at her residence in Green county, Kentucky, a distance of sixty miles from Danville, for the purpose of examining her case, and that she soon after came to his own house to undergo the operation of ovariectomy, he says: "my nephew, Dr. James McDowell, whom I had brought up, had graduated a few months before this time, in Philadelphia, and had commenced business as my partner. Being in delicate health at the time, it was my intention to remove to the country in the spring, or so soon as I could establish my nephew in business.

"From the time of Mrs. Crawford's arrival, he had made frequent attempts to persuade me from operating; but, finding my determination was fixed, he agreed to be present, but not until the morning I operated, and as my partner, to assist; for should the

patient die, the responsibility was all my own; should the patient live, it would assist him in his outset in business.

“The day having arrived, and the patient being on the table, I marked with a pen the course of the incision to be made; desiring him to make the external opening, which, in part, he did; I then took the knife, and completed the operation, as stated in the Medical Repertory. Although the termination of this case was most flattering, yet I was more ready to attribute it to accident than to skill or judgment of my own; but it emboldened me to undertake similar cases; and not until I had operated three times—all of which were successful—did I publish anything on the subject. I then thought it due to my own reputation and to suffering humanity to throw all the light which I possessed upon diseased ovaria.”

It is not necessary that I should enter into a formal examination of the claims of Dr. McDowell as the author of the operation in Mrs. Crawford's case. The paper from which I have read the above extracts, is accompanied by three certificates, all testifying to the truth of Dr. McDowell's statement. One of these certificates is from Mrs. Crawford herself; another from her nurse, Mrs. Baker; and the third from Mr. Charles McKinny, a private pupil of Dr. McDowell, who, with Mrs. Baker, witnessed the whole proceeding. He states, expressly, that Dr. James McDowell made the external incision as directed by his uncle, and that then the latter took the knife and extracted the diseased ovary. He asserts, moreover, that he never heard Dr. James McDowell claim the credit of the operation. When we add to these facts, the statement of Dr. William A. McDowell, that he and Dr. Smith both assisted Dr. Ephraim McDowell, on several occasions, in the same manner, it follows, as a necessary corollary, that the claims set up in behalf of Dr. James McDowell, who is said to have been a young man of great professional promise, must fall to the ground as untenable.

I have endeavored to establish the claims of Dr. Ephraim McDowell, to the operation in question, upon a firm and immutable basis. My only motive for so doing, has been a wish to defend truth, to subserve the interests of surgical science, and to

award credit where credit is alone due. How far I have succeeded in my effort, let others judge.

But Dr. McDowell's claims to distinction do not, by any means, rest upon his exploits, novel and brilliant as they were, as an ovariologist. He ranked also deservedly high as a lithotomist. For a time he was almost the only physician in Kentucky who performed this operation. In the latter period of his life, he was eclipsed, in this branch of surgery, by his neighbor, Dr. Dudley, of Lexington, who, after the establishment of the Transylvania Medical school, for many years almost monopolized the stone cases in Kentucky and the adjacent States. It is not known how often Dr. McDowell performed this operation; but it is positively ascertained that he had, up to 1828, two years prior to his death, executed it thirty-two times, and that without the loss of a single patient. Such success is as rare as it is creditable to Dr. McDowell's skill and judgment. He confined himself to the lateral method, and early in life opened the bladder with the gorget, but afterwards made his deep incisions with the knife.

One of his most interesting cases, not from any peculiar circumstances or merit, but from the exalted position afterwards attained by the patient, was that of Mr. James K. Polk, late President of the United States. This gentleman had suffered from symptoms of vesical calculus from an early period, and in his seventeenth year he was induced to visit Danville in search of advice. The operation was performed in the autumn of 1812, with Dr. McDowell's usual skill, and a happy recovery was the consequence. The calculus, which, through the kindness of Wallace W. McDowell, Esq., of Danville, the only surviving son of the distinguished operator, I have the honor of exhibiting to you this morning, was of small size, very hard and heavy, with a rough tuberculated surface. Mr. Polk carried it home with him, not in his bladder, but in his pocket, to show it to his friends and neighbors, with whom it was a source of great curiosity. In a letter, dated in Maury county, West Tennessee, December 3rd, 1812, he informs his surgeon of the progress of his cure, and feelingly expresses his sense of gratitude for the services which he had received from him. This letter, as a specimen of literary composition, is far below mediocrity; it is badly spelled, and

written in the worst style. In these respects, it is in striking contrast with another letter addressed to Dr. McDowell, nearly fourteen years afterwards, when Mr. Polk represented his adopted State in the Congress of the United States. In this communication, written with great accuracy, and even eloquence, Mr. Polk again expresses his gratitude to Dr. McDowell; speaks of the excellence of his health, and alludes to the manner in which he spent his time since his recovery from the operation. "I have been enabled," he says, "to obtain an education, study the profession of the law, and embark successfully in the practice; have married a wife, and permanently settled in Tennessee; and now occupy the station in which the good wishes of my fellow-citizens have placed me. When I reflect, the contrast is great, indeed, between the boy, the meagre boy, with pallid cheeks, oppressed and worn down with disease, when he first presented himself to your kind notice, in Danville, nearly fourteen years ago, and the man at this day in the full enjoyment of perfect health." I take great pleasure in alluding to these letters of Mr. Polk. The career of this gentleman, and that of his surgeon, show how early obstacles may be vanquished by industry, and how perseverance enables men, from small beginnings, to attain to great ends.

Dr. McDowell performed numerous other operations, but of their nature I am not apprised; nor could it be necessary, if I were, to refer to them in a particular manner on this occasion. His anatomical knowledge, courage and dexterity, were sufficient to enable him to execute any operation that might have been required within the extensive circle of his practice. It cannot be supposed, for a moment, that the man who was the first to excise a diseased ovary, and who cut thirty-two patients for stone without a single failure, would shrink from the performance of any surgical duty, however novel or hazardous, provided he was certain that it was imperatively demanded by the circumstances of the case.

He paid much attention to the subject of hernia. He often operated successfully for the relief of strangulation, and performed many medical cures by means of the truss. His reputation in this branch of surgery attracted patients to him from a great

distance. The late President Polk was one of his subjects, and one of those who were radically cured by his skill.

As a surgeon, Dr. McDowell was exceedingly cautious. He never undertook an operation until his own mind and the patient's system were prepared to his entire satisfaction. Notwithstanding his extraordinary accuracy in anatomical and surgical knowledge, he never operated, in any important case, without carefully reviewing the relations of the structures involved, and referring to the best surgical authorities in his library on the subject. His pupils were obliged to do the same thing, as well as to examine the case, and favor him with their opinion on it. His assistants were carefully selected, and regularly drilled, until, like thespians, they perfectly understood their parts.

He was remarkably kind to his patients, sympathizing with them in their suffering, and encouraging them by tender and soothing expressions. His hand never quivered in an operation; nor did his mind quail; but his face flushed, and, even in the depth of winter, the perspiration often started from every pore. A gentleman, Dr. Alban G. Smith, now Dr. Goldsmith, who knew Dr. McDowell intimately, and who is himself an excellent operator, writes me that he was the best operator he ever saw, in all cases where he had a rule to guide him. He always preferred to operate on Sunday mornings, saying that he liked to have the prayers of the church with him.

He was an accomplished anatomist. He made it a business to dissect, more or less, every winter, and he took special pains, on such occasions, to aid his pupils in acquiring a knowledge of the human structure. Subjects were not always obtained, at that period, without trouble and even risk.

Dr. McDowell was no writer. The only contributions he ever made are his first five cases of ovariectomy, in the seventh and ninth volumes of the Philadelphia Eclectic Repertory. It is a subject of deep regret that he should have felt, throughout the whole of his life, such a deep repugnance to the publication of the results of his experience. Extensively engaged as he was for so long a period in the practice of medicine and surgery, he must have accumulated a vast amount of knowledge, most valuable to the profession and to suffering humanity, and eminently condu-

cive to the extension of his own fame. But such exercise was distasteful to him, and no remonstrance on the part of his friends, could induce him to engage in it. Temporary notoriety and posthumous fame were subjects alike of indifference to him. He pursued the "even tenor of his way," and his habits were so confirmed that it was impossible to change them.

Dr. McDowell was an honorary member of several medical associations. The Medical Society of Philadelphia, one of the oldest and most respectable institutions of the kind in the country, sent him its diploma in 1807. In 1825, he received from the University of Maryland, then in the height of its renown, the honorary degree of doctor of medicine,—a distinction which was a full acknowledgement of his exalted reputation,—and which afforded him genuine gratification, the more especially as it was unsolicited on his part.

Had Dr. McDowell lived in France he would have been elected a member of the Royal Academy of Surgery, received the cross of the Legion of Honor from the King, and obtained a magnificent reward from the government, as an acknowledgement of the services which he rendered his country, his profession, and his fellow creatures. His own country, and especially his own neighborhood and State, failed to appreciate him. I am told by gentlemen whose veracity is indisputable, that but few of his immediate fellow-citizens were capable of drawing a just distinction between him and the merest charlatans in his vicinity. Such must ever be the fate of true greatness in all new communities. Dr. McDowell had the misfortune to live before his time; he was born in advance of his age.

He was a kind-hearted, amiable man, an urbane and accomplished gentleman, a benevolent physician, a warm and generous friend, an excellent neighbor, an affectionate husband, and an indulgent and anxious parent. His character, in all the relations of life, was most exemplary. Of a lively, social temperament, abounding in wit and pleasantry, he was the master-spirit and delight of every company which he honored with his presence. No man was ever more agreeable, none more amusing, none less assuming. Frank in his manners, and easy of access, no one

could be a stranger in his society, or leave his presence without a feeling of regret.

As a scholar he was entitled to no ordinary rank in comparison even with some of his most distinguished cotemporaries of the learned profession of which he was a member. He was much devoted to study, especially in early life, and was a most admirable recitationist. He was fond of the Greek and Latin, which he read quite fluently, and a knowledge of which he retained long after his return from Europe. But historical and belles-lettres literature occupied more of his time and attention than classical and scientific works. Burns and Scott were his greatest favorites. In his readings of these authors, he rolled the Scottish idiom upon his tongue in a manner totally indescribable. His recitations from Scottish dialogues, adopting his intonations to the supposed character of the speaker, were richer and more exciting than any theatrical exhibition.

He was fond of music, and sung a variety of odes and catches in Latin, English, and Scotch, in good taste and with fine comic effect. His favorite pieces—those of a comic and humorous character—he frequently accompanied with his violin, an instrument to which he was very partial, but upon which he was a poor performer. Like Themistocles, the Athenian, “he could not fiddle, but yet he could make a small town a great city;” he could achieve wonders in surgery, such as had never been achieved before; and he could thus immortalize his State and country.

His excellence in the Scottish dialect and melody is probably attributable to his summer rambles in Scotland, during the vacations of the medical sessions in the University of Edinburgh.—In company with two of his classmates, Drs. Brown and Speed, both from Kentucky, he perambulated a considerable portion of that “land o’ cakes,” much to their mutual delight and edification. They travelled on foot, each packing a change of clothes in a wallet. In the tour, Dr. McDowell met with several respectable members of his family connection, who recognized and received him as a clansman, pretty much after the style and manner of hospitality commemorated and immortalized by Burns and Scott.

The travelers were well provided with letters to distinguished

personages 'en route,' who never failed to treat them with marked attention and respect. On approaching the residences of these individuals, they always hired a conveyance, and riding up in due form and style, were received accordingly. They, however, if their entertainment was to their liking, soon "let the cat out of the wallet;" immediately upon which all formality ceased, and they were carried about, all over the neighborhood, either on horseback or in a coach, as they happened to fall in with a commoner or a "gig-man," and exhibited to all sorts of people as gentlemen from the extreme backwoods of America. It is very questionable whether the United States have had, at any time since, the good fortune to be more creditably represented in that ancient and interesting country; a trio of equal intelligence, of fine looks, wit, and good fellowship is rarely to be found any where.

After his return to Kentucky, Dr. McDowell frequently recurred, in terms of the greatest delight, to the happy hours spent in these peregrinations, recounting with peculiar glee the incidents which befell him and his backwoods companions. He ever after cherished a warm attachment for the Scotch, their beautiful and romantic country, and their noble, scientific, and charitable institutions.

His library was quite extensive for the period in which he lived, consisting of all the standard medical works, many of which he had brought from Europe. On the practice of physic he always procured and read the most celebrated authorities; more, says one of his pupils, on account of his students, of whom he always had a considerable number, than of his patients. He was an ardent admirer of Sydenham & Cullen, and never could appreciate any advances worthy of note upon these celebrated writers. With many of his cotemporaries, he regarded the portraitures of disease, delineated by the hands of these masters, as inimitable. In his judgment, all other writers on the practice of medicine were mere bunglers and copyists; a decision in which nearly all intelligent professional men at that period concurred. He was in the habit of earnestly cautioning his students against too free a use of medicines. As a *secret*, he apprised them of his impression that the employment of medical drugs was more of a curse

than a blessing to the human race, and that quackery perpetrated much more mischief and destruction by their means, than the science of the profession could counteract. In the surgical branch of his profession he took great delight; he characterized it as the *certain* branch of the healing art, and spared no pains to advance and perpetuate his knowledge of it. He does not seem to have had any special fondness for the practice of medicine, as he always had a partner upon whom he devolved most of this kind of business, especially after he had achieved some reputation as a surgeon.

His fees for surgical operations were regulated, as a general rule, by the ability of his patients. As might be supposed, from the extent of his practice, and from his benevolent disposition, he occasionally, perhaps frequently, rendered his services gratuitously. Pauper patients, no doubt, often resorted to him from a great distance, and McDowell would have been the last man in the world to turn a deaf ear to their entreaties for advice and relief. To a humane surgeon, appreciating his duty to his God and to his fellow-creatures, the claims of the sick poor appeal with irresistible force, proving paramount to every selfish or pecuniary consideration; they are his best subjects, because, in the language of Boerhaave, God is their paymaster, and because the expression of their gratitude is voluntary, not being extorted in the hope of obtaining a small bill for the services they have received from their professional attendant.

Occasionally his fees were large; in one instance almost princely. I allude to the case of Mrs. O., upon whom he performed the operation of ovariectomy, in the summer of 1822. This lady lived in the vicinity of the Hermitage, in Tennessee, the residence of the late President Jackson, and Dr. McDowell had agreed to operate upon her, at her own house, for five hundred dollars. He remained with her for some days, and on the morning of his departure her husband, a highly respectable and intelligent citizen, gave him a check, as he supposed, for the stipulated sum, on one of the banks of Nashville. On presenting it, he discovered that it was drawn for fifteen hundred dollars, instead of five hundred. Presuming that a mistake had been made, he immediately dispatched his servant to the gentleman, who replied that no mistake

had occurred, and that the services he had received from Dr. McDowell more than counterbalanced the sum he had paid him. Such generous liberality was alike honorable to the giver and to the receiver. So far as I know, this is the largest fee ever paid in this country for a surgical operation. Considering the value of money at that time in the South-west, or in other words, the cheapness of living, and the comparatively small compensation for professional services, it was fully equivalent to the celebrated fee of a thousand guineas paid by Mr. Hyatt, a West Indian merchant, for an operation performed upon his person by Sir Astley Cooper.

Dr. McDowell was not wealthy; his estate at the time of his death was estimated at from forty to fifty thousand dollars. His mode of living was plain and unostentatious; he was always glad to see his friends, and to extend his hospitalities to them. The "latch-string" always hung conspicuously at the door.

He was a man of enlarged and liberal views. He spent his money and his time freely upon charitable objects, and manifested great interest in advancing the prosperity of Danville, the scene of his professional labors and professional renown. Of Centre College, located at that town, and at present, thanks to the talents and wisdom of President Young, the most successful literary institution in Kentucky, he was one of the founders, and one of the original trustees; subscribing liberally towards its support.

Dr. McDowell was always a decided Christian in his feelings and conduct. At the time of his settlement at Danville, in the latter part of the last century, nearly the entire male population of the village was Atheistically inclined; and not a few were of the Robespierrian School, having achieved the grand discovery that "death is but an eternal sleep." With these men, he had no sympathy, though he was of too benevolent and tolerant a nature to fall out with any one for entertaining different tenets from his own.

In 1828, two years before his death, he united himself with the Episcopal church, having made an open profession of religion at Lexington. On his return from that city, he donated a lot at Danville, on which was afterwards erected the present church

edifice of that town. During the two latter years of his life, he was earnestly engaged in building up a congregation. He survived long enough to see that his efforts in the cause of the Redeemer had not been in vain. Although still small, the Episcopal church at Danville is now one of the most respectable in the State.

But the close of his earthly career was drawing near. The sand in the hour-glass of life was rapidly disappearing; his days were numbered; the summons had gone forth; the tall and sturdy oak was stricken, and waved to and fro under the influence of the mighty tempest; one after another of its branches yielded to its resistless power, and all that was frail and mortal of it fell to rise no more. Dr. McDowell expired at Danville, on the 25th of June, 1830. His disease was inflammatory fever, terminating his valuable life on the fourteenth day of the attack, and in the fifty-ninth year of his age. For him death had no terrors, the grave no victory. Confiding in the mercy and promises of his Creator and Redeemer, his God and his Judge, he awaited his end with the patience of a Christian, and the calmness of a philosopher. He had "set his house in order," and met death with a serene and composed mind. From the very moment of his seizure, he had a presentiment that he should not survive it.

To the professional pilgrim of the West, it will not be uninteresting to know that the remains of Kentucky's first great surgeon repose in the family burial ground of Gov. Shelby, five miles from Danville. His tomb-stone, a plain slab of marble, bears the simple inscription of his name, "Ephraim McDowell."

In his person, McDowell was nearly six feet in height, with a florid complexion, and very black eyes. He was of a remarkable happy disposition, and rather inclined to corpulency. Up to the very time of his sickness, he was one of the most active men in Kentucky. As an illustration of his agility and muscular strength, the following anecdote, which he often narrated with special glee, affords a good example. While he sojourned in Edinburgh, a celebrated Irish foot-racer, a sort of Mike Fink, arrived, boasting that he could out-run, out-hop, and out-jump any man in the city, and bantering the whole medical class. • McDowell was selected as their champion. The distance sixty

yards, and the stake ten guineas; the trial took place in the College grounds, and the American purposely allowed himself to be loser. A second race for one hundred guineas, and at an increased distance, came off soon afterwards, and this time the Irishman, after much bullying, was badly beaten, much to his own chagrin, and the gratification of the students.

Dr. McDowell remained faithful to his profession until the last moments of his life. He literally died in the harness. A few months before his final illness, he commenced the building of a large and beautiful mansion in the country, two miles from Danville, where he had intended to spend the evening of his life, away from the cares and fatigues of a busy practice. Death, as has been already seen, frustrated this design. The mansion was finished, but was occupied by other tenants.

I have already dwelled so long upon the life and services of Dr. McDowell that I must bring this branch of my subject to a close. His whole character may be summed up in one sentence. *He was a deep and original thinker, a bold, fearless, intrepid, and original operator, a faithful and adroit physician, an honest, upright, conscientious, and benevolent man, whose career, in whatever aspect it may be contemplated, affords an example worthy alike of our admiration and imitation.*

I.—AFFECTIONS OF THE HEAD.

Injuries of the Skull and Brain.

There is no subject within the whole range of surgery of deeper interest or importance than that of injuries of the skull and brain; endangering, as they so frequently do, either primarily or secondarily, the life of the patient; or, if he is so fortunate as to escape from their immediate effects, the integrity of his intellectual and bodily powers. It is for these reasons that this class of affections, so common in every community, has always been an object of particular study with the surgical pathologist, and it has elicited an amount of inquiry and research that can scarcely

be claimed for any other branch of our profession. It affords me pleasure to state that this subject has not been neglected by the surgeons and physicians of Kentucky; but, on the contrary, that it has received from them more than ordinary attention. The paper of Dr. B. W. Dudley, of Lexington, entitled "Observations on Injuries of the Head," in the first volume of the *Transylvania Journal of Medicine and the Associate Sciences*, is one of the most valuable and instructive contributions that have been made to the science of surgery during the first half of the present century. Indulging in no hypotheses, or speculative views, it aims to establish the treatment of this class of lesions upon just and philosophical principles, deduced from the author's own experience; and no one who follows him, as he is engaged in tracing out these principles, can fail to be impressed with their general soundness and accuracy. The only regret which he experiences, is that the paper is so short, and that the language in which it is couched is not always free from ambiguity and inelegancies.

The article of Dr. Dudley is comprised in about thirty pages, and was published in 1828, when the distinguished author was in the meridian of his fame and usefulness. It is impossible, within the limits of this report, to present a perfect analysis of the matter contained in this paper, but it cannot be too strongly recommended to the consideration of the profession, especially to younger members of it. My remarks will be restricted chiefly to Dr. Dudley's account of some of the secondary effects of injuries of the skull and brain.

It is well known that fractures of the skull, especially such as are attended with depression, are not unfrequently followed by epilepsy. For the relief of this affection, thus induced, the *materia medica* offers no hope. Nothing short of the removal of the offending piece of bone, with the elevator or trephine, answers the purpose, and this, unfortunately, does not always succeed. The first operation of this kind was executed by La Motte,* in 1705. His patient, however, was only partially relieved. As

* *Traité des Nerfs et de leurs Maladies*, par M. Tissot, T. 3. partie 1, sec. 129, art. 20.

long as the aperture, made by the instrument, remained open, he experienced no recurrence of the disease; but as soon as it healed up, the spasms returned, though not with their accustomed severity. Subsequently to this, the operation was occasionally resorted to, sometimes, by different surgeons, for the cure of neuralgia and other nervous affections of the head. In 1800 it was performed successfully for the relief of epilepsy, by Mr. Cline, of St. Thomas's Hospital, in London; and in 1804, with a like result, by Mr. Birch, of the same institution. Mr. Hemsted, a surgeon of Newbury, England, met with a favorable case in 1822. In more recent times the operation of trephining for the cure of epilepsy, has been executed with various effects, by different surgeons, in all parts of the civilized world.

Dr. Dudley's cases, as narrated in the paper under review, amount to five, of which three were successful, while the results of the others have never been ascertained, owing to the fact that he lost sight of his patients. Subsequently, namely, in 1832, he met with another instance, the particulars of which are contained in the fifth volume of the valuable periodical above quoted. A very brief outline of the case must suffice on this occasion.

A carpenter consulted Dr. Dudley, in September, 1818, for a severe pain in the upper and back part of the cranium, which had afflicted him for nine months, and which was attended with extraordinary sensibility of the scalp. About Christmas the symptoms became aggravated, and epileptic convulsions, so severe and frequent as to threaten life, ensued. The trephine was applied on the 16th of April, 1819, and two circular pieces of bone removed in the direction of the longitudinal sinus. The pericranium was remarkably thickened and morbidly sensitive; the bone was porous, and pierced by numerous vessels and fibrous processes; and a "copious secretion of fluid" existed beneath the dura mater, between it and the surface of the brain, which was free from pulsation, and felt "as hard and unyielding as a board." When the dressing was removed, on the fifth day, the wound was suppurating abundantly, the fluid deposit was absorbed, and the brain had regained its natural condition. The patient was perfectly restored at the end of three months, having

experienced only two slight attacks of epilepsy after the operation. The cure was radical.

A young man, aged twenty-one, received a blow on the upper and middle portion of the left parietal bone, followed suddenly on the ninth day by apoplexy and paralysis of one side. At the end of two months, the effects of this attack had passed off; but from this time on he suffered constantly from severe pain in the head, especially about the seat of the injury, was liable to faint after the slightest exertion, and became exceedingly delicate and excitable. About the age of fourteen, he was seized with epileptic convulsions, which recurred afterwards at irregular intervals of two, three, or four weeks; his memory became treacherous, and he stammered in every attempt at enunciation. A cicatrice on the side of the scalp, with a slight depression, pointed out the seat of the original injury. With the trephine a disc of bone was removed, having a ridge upon its inner surface, about an inch in length, and about the size of a small quill at its base. This spiculum had penetrated the dura mater, and communicated with a large preternatural sinus, more than an inch in depth, from whence issued a stream of blood as thick as a man's little finger. The dura mater was diseased and of a dark blue color at and around the opening in the skull. Before the dressings could be applied, several severe convulsions occurred, followed each by a copious stream of blood from the sinus in the dura mater. For six or eight hours after the operation, the patient lay in a state of insensibility, when there was a return of reason and natural feeling. An immense amount of serous fluid, estimated at two gallons, was discharged from the wound during the first four days, when it was succeeded by healthy pus. No convulsions took place after the first day; the speech, memory, and mind rapidly improved, and in six weeks he went home perfectly well.

A young man, aged twenty-three, when five years old was kicked by a horse, causing a fracture with depression of the right parietal bone. No unpleasant effects ensued until his fifteenth year, when, without any assignable reason, he had for the first time an epileptic fit, which recurred afterwards every second, third, or fourth week, impairing his general health, and destroying his memory. The depressed bone presented on its inner sur-

face a spinous process, about half an inch long; and there was a large sinus or cavity, filled with colorless serum, and reaching down to the petrous portion of the temporal bone, near the base of the skull. The patient had two slight attacks of epilepsy on the second and third days after the operation; but on the fourth suppuration was established, and from that period he gradually improved in mental and corporeal vigor. At the end of the fourth week, the wound was cicatrized, and the recovery complete.

Of the fourth and fifth cases no special analysis is necessary, as the result has never been ascertained by the operator. The patients recovered from the use of the trephine, and went home, but were not heard from afterwards.

Dr. Dudley's sixth case was that of a man who received a gunshot wound on the head, attended with a comminuted state of the right parietal bone, and followed by an escape of a small quantity of cerebral substance. After some months of epileptic convulsions, with great derangement of the general health, ensued, and there was a constant discharge of pus from the seat of the original injury, which was indicated by a cicatrice two inches and a half in length. The trephine having been applied, "isolated portions of bone were discovered beneath the dura mater, in a cavity of some dimensions, occasioned by the absorption of the brain. Three of these, amounting in size to the thumb and finger nails, were removed, together with a morbid growth from the surface of the wounded dura mater. Simple dressings were then applied, and renewed occasionally for a week, when the patient was discharged, free from all embarrassment, both in the corporeal and intellectual functions."

The cases here described are of great interest, inasmuch as they serve to establish, along with those of Cline and other surgeons, two most important principles in pathology and practice; first, that the brain may, and frequently does, endure a large amount of compression and irritation, without serious detriment to the general well being of the individual; and secondly, that they often admit of entire and permanent relief by the use of the trephine.

The following remarks of Dr. Dudley will be read with interest: "The experience which time and circumstances have afforded

in injuries done the head, induces me to depart from the commonly received principles by which surgeons are governed in regard to the use of the trephine. In skillful hands, the operation beyond the atmosphere of large cities, is neither dangerous in its consequences, nor difficult in the execution. With the views entertained on the subject of the all-pervading influence of the chylopoetic organs, in producing a great variety of those diseases called surgical, I do not feel apprehensive of committing errors by the too frequent use of the scalpel and the saw."

Another valuable paper upon injuries of the skull and brain has recently appeared, from the pen of my friend, Dr. Hardin, formerly of Greensburg, now of this city, in the *Western Journal of Medicine and Surgery*, for March, 1852.

Dr. Hardin reports six cases of fracture of the cranium with depression, five of which exhibited no constitutional symptoms of cerebral compression at or near the time of receiving the injury. Two of the individuals, in whom the depression was suffered to remain, became epileptic and insane, and were relieved, five months subsequently, by the trephine.

1844. In the first case, a negro man, between thirty and forty years of age, the injury was inflicted on the left parietal bone, at its juncture with its fellow, and a little anterior to the lambdoidal suture, the crown of the largest trephine was just sufficient to comprehend the depressed portion of bone. Upon removing this, numerous spiculæ of the bone were found pressing upon, but not penetrating, the dura mater, and were carefully removed. The recovery of the patient from epilepsy and insanity was complete in a few weeks; but his general health, which had become very much impaired, was not restored, and a year afterwards he became the subject of paralysis of the lower extremities and died dropsical two years after the receipt of the injury. No autopsy was made.

1844. The second case, was that of a youth, aged sixteen, who, in a fall from a tree, received a snag in the orbit, a portion of which was broken off and remained concealed in the wound for several weeks. After its removal, the wound healed, but soon afterwards epilepsy, with furious insanity, supervened. Five months from the reception of the injury, the young man

had from fifteen to twenty convulsion daily. An opening was made with the trephine into the frontal sinus, and the superior orbital plate found to have suffered comminuted fracture; the fragments were removed, and the patient perfectly recovered, having had but one fit after the operation.

1845. The third case, was that of a little girl, twelve years of age, who, from the kick of a horse, sustained a compound fracture with depression of the anterior inferior portion of the right parietal bone. No constitutional symptoms supervened. She was trephined, the depressed bone was raised, and she recovered without a bad symptom.

1846. Case fourth was a negro boy, aged fifteen years, who sustained a compound fracture of the parietal bone, mid-way between its centre and posterior superior angle. A piece of bone, the average diameter of which was about half or three quarters of an inch, of an irregular circular shape, was entirely detached, and driven down upon the brain; the fracture being greater in the internal than the external plate, required the use of the trephine for its removal. There were no constitutional symptoms present, and the recovery was complete and permanent.

1847. The fifth case was that of a negro boy, twelve or thirteen years old, who was thrown against a tree by a horse, and suffered a depressed fracture of the parietal bone; profound coma existed, and the circulation was feeble. On the day succeeding the injury, he was trephined without producing any amelioration of symptoms, and on the day following he died. No autopsy was made.

1847. Case sixth was that of a man, about thirty years of age, who received a blow on the forehead with an axe, producing a fracture running obliquely from a point a little external to the centre of the right superciliary ridge upwards and inwards nearly to the median line of the frontal bone, and reaching about two thirds the height of the forehead. The upper portion of the fracture was deeply depressed, the skin was unbroken. No constitutional symptoms existed—the trephine was used, the bone elevated, and the patient recovered without any untoward symptoms.

Dr. H. contends that the immediate danger of inflamma-

tion and the more remote secondary consequences are far greater than that arising from the use of instruments, and that, consequently, in all cases of clearly ascertained fracture with depression, whether simple or compound, the bone should be elevated or removed.

The paper of Dr. Hardin is one of much practical value, and I beg leave, therefore, to recommend it to your special consideration. The facts which he adduces are strongly corroborative of the truth of the doctrine which he attempts to vindicate. On this subject, however, we must wait for fuller experience; "*adhuc subjudice lis est.*" Two of the cases which Dr. Hardin has brought forward, afford another happy illustration, if fuller illustration were needed, of the beneficial effects of the operation of the trephine in epilepsy, occasioned by depressed fracture of the skull.

A case in which the trephine was successfully applied for the cure of epilepsy has been reported by Dr. E. L. Dudley.* The disease was occasioned by a depressed fracture of the skull, attended with the loss of a considerable portion of the frontal bone. The accident occurred in February, 1850, and in the month of June following, the patient, who was a black man, aged thirty years, and who had been previously doing well, was seized with a very severe convulsion. In a short time another paroxysm occurred, then another and another, until scarcely a day passed without one. The man rapidly lost his sprightliness, began to stammer, and acquired an idiotic expression. The operation of trephining was performed in July, 1851, about seventeen months after the receipt of the injury, and a segment of bone, sufficiently large to command the entire circuit of the depressed space, removed. "The remaining portion of the operation consisted in carefully dissecting the scales off the internal table of the os frontis, some of which were turned edgewise upon the dura mater, others embedded in masses of lymph, and two sharp, thin processes projected into the cavity of the skull from different points of the bone circumscribing the original seat of the injury. These last were cut away with the rugine, and in this period of the opera-

* Transylvania Medical Journal, October 15, 1851, p. 85.

tion, our labors were temporarily suspended by the occurrence of a terrible convulsion." Simple dressings were applied, and four days passed in the most flattering manner. At the end of this time, the convulsions recurred with great violence, and continued, with little, if any abatement, for about fifty hours, when, an incision being made into the dura mater and a small quantity of bloody serum discharged, they entirely ceased, and never returned afterwards, except in a very slight degree, upon one occasion. The recovery was complete.

The following cases of fracture of the skull deserve mention here on account of the great extent of the injury both to the cranial bones and to the brain. The first is given by Dr. Abraham Addams, of Cynthiana, in the fourth volume of the *Transylvania Journal of Medicine and the Associate Sciences*, and occurred in a boy, nine years of age, from the kick of a horse. The fracture was two inches and a half in length, and was seated in the left parietal bone, which was broken into numerous fragments, some of which were depressed and forced into the meninges, which were torn to such an extent as to permit a free discharge of cerebral substance. The patient, when seen, soon after the accident, had laborious respiration, irregular pulse, dilated pupils and paralysis of the left arm, and was in a state of continual restlessness, "writhing and twisting like a worm." All the loose pieces of bone being removed with the trephine and elevator, and the parts cleared of blood, the boy, under an occasional bleeding, and the daily use of cathartic medicines, was progressing favorably until the eleventh day, when, in consequence of the undue pressure of the head-bandage, he was seized with violent convulsions, lasting several hours. About this time also a fungus made its appearance, but soon gave way under the pressure of a sponge and roller. Two months after the accident, the lad was entirely well, the wound completely healed, and the paralysis of the arm relieved.

A case of extensive fracture of the skull and rupture of the meninges, with loss of substance of the brain, and subsequent recovery, is given by Dr. John Swain, of Ballardsville.* The

* *Western Journal of Medicine and Surgery*, vol. 5., p. 473. Third Series, 1850.

patient was a boy, 12 years of age, who was kicked on the head by a horse, on the 13th of October, 1848. An hour and a half after the injury, he complained of but little pain, and was perfectly rational, answering all questions satisfactorily. "The blow covered the os frontis and the nasal bones, crushing the former, depressing the latter, separating the head from the face, and making an external wound, reaching from the outer angle of the right eye to the lesser canthus of the left, sufficiently open to admit the passage of the finger behind the ball of either eye." A portion of the frontal bone, one inch wide and one and a half in length, and including the orbitar arch, and a portion of the orbitar plate, one inch by four lines in size, were completely detached, and completely buried in the substance of the brain, about a table-spoonfull of which was lost in the dressing. Small fragments of the supra orbitar arch on the right side were raised and removed. The edges of the wound were brought together by the interrupted suture, and covered with lint, a compress and a roller. No untoward symptoms arose; the reaction came on quietly and slowly, and the pulse at no time exceeded a hundred beats in the minute; and on the 8th of December the boy was so well as not to require any further attention from his surgeon. All his faculties and functions appeared perfectly healthy, except the sense of smell, of which he is wholly deprived.

A case of extensive fracture of the skull with loss of cerebral substance, has been sent to me by Dr. Samuel R. Sharpe, of Maysville. A youth, of the name of Dunlap, aged 15 years, was thrown from his horse into the bed of a creek. The accident was attended with extensive fracture of the right parietal bone, depressing to the depth of three-quarters of an inch, a loose fragment, one inch and a half in length by one inch in breadth, with sharp, serrated edges. The piece lacerated the membranes of the brain in its entire length, and embedded itself in the substance of this organ. The lad was very restless and perfectly insensible; the extremities were cold, the pulse was feeble, and every convulsive movement was followed by the escape of more or less medullary matter. The accident occurred in the dusk of the evening, and the depressed fragments, eight or ten in number, were not removed until the next morning, at 9 o'clock. Two

very extensive pieces, held only by some very slight spiculæ, were elevated and adjusted, in the hope that, should the boy survive, they might unite, and thus diminish the gap in the skull. The quantity of medullary matter lost must have been from an ounce and a half to two ounces. Consciousness returned partially on the third day, but the boy was not coherent for weeks. Cold water dressings were employed. About the tenth day, fungus of the brain appeared, requiring compression for its relief. When last heard from, a considerable period after the accident, the lad was entirely well, with the exception of a slight inability to articulate certain words.

Dr. William Kenney, of Millersburg,* states that he was called to a youth of 17 years, who, on the night of the 25th of July, received a stab with a common pocket knife, the blade of which was two inches and a half in length and three-quarters of an inch in width, tapering abruptly to a point. The wound was situated on the left temporal region, nearly midway between the outer angle of the eye and the auditory meatus. The blade of the instrument was completely buried in the brain, and was so firmly fixed in the skull that it was withdrawn with great difficulty. Its removal was followed by the loss of ten or twelve ounces of blood, vomiting, and stupor. During its presence in the brain, as well as for some time after, the patient complained of severe pain in the left eye and frontal region. The injury was followed by symptoms of slight cerebritis, which soon yielded to the free use of cold applications to the scalp, mercurial purgatives, low diet, and perfect rest.

Fungus of the Brain.

In the treatment of fungus of the brain, an affection which not unfrequently arises after compound fracture of the skull and the operation of trephining, Dr. Dudley placed great confidence in the employment of gentle and sustained pressure with dry sponge, aided by the roller. A knowledge of the capacity of the brain to accommodate itself to preternatural compression in apoplexy and

* Western Journal of Medicine and Surgery, third series, vol. 4, p. 307, 1849.

other disorders, first suggested to him, it would seem, the advantages of this mode of practice. In the first case in which he resorted to it, a dry piece of sponge was applied to the fungus, and bound down with a bandage as closely as the feelings of the patient would admit. "By imbibing the secretions of the part, the pressure on the protruded brain regularly and insensibly increased until the sponge became completely saturated. On the removal of this dressing, its decisive influence and superior efficacy remained no longer a matter of doubt, although it was difficult to remove the sponge, in consequence of its being extensively penetrated by blood-vessels originating on the surface of the brain. With a view to prevent this inconvenience in future, a fine piece of thin muslin was interposed. By the gradual and regularly increasing pressure of the sponge, I was enabled, in the course of a few days, without incommoding the patient, to replace a mass of protruded brain, equal in magnitude to a small hen's egg; nor have I, in any subsequent case, experienced any difficulty whatever, relying upon the same mode of treatment."*

Fungus Tumor of the Dura Mater.

Under this head may be mentioned a remarkable affection of the brain and its membranes, communicated to me by my friend, Dr. James C. Johnston, formerly one of the most eminent practitioners of Louisville.

An old gentleman, after having experienced, for nearly six months, the most excruciating pain, apparently of a neuralgie character, on the top of the head, perceived, early in April, 1817, a slight protuberance at the seat of his suffering, hard and firm, immovable, indolent, and about the size of a pigeon's egg. As it increased it gradually became soft and pulsating, thus inducing the belief that it was aneurismal. Under this impression, an operation was decided upon. Accordingly a crucial incision, three inches in length, was made across the tumor, which, when carefully denuded, was found alternately to swell and retract, precisely like an aneurism. Continuing the dissection, the tumor

* Transylvania Jour. of Med. and the Asso. Sciences, vol. 1, p. 38.

was next disengaged from its attachments to the periosteum and dura mater, and elevated from its bed in the skull, which was perforated to the extent of about a quarter of a dollar in diameter. The hemorrhage was inconsiderable, and the wound was dressed in the usual manner with adhesive strips, a compress and bandage.

The parts progressed favorably until the eighth day, when, upon removing the dressings, the tumor was found to be springing up again. It grew quite rapidly, and by the fifteenth day after the operation it had acquired the size of a hen's egg; it was pedunculated, and presented a cauliflower appearance. The tumor was now excised a second time. The hemorrhage was so profuse that the patient came near dying before it could be arrested.—The wound was dressed as before, and the antiphlogistic treatment strictly adhered to. For a fortnight the symptoms were favorable, when this hydra again reared its fearful head. Prof. Dudley, of Lexington, was now consulted, and the tumor treated with compression, made with a sponge, and adhesive strips long enough to reach from one side of the head to the other. This plan had the effect of checking the outward march of the growth, but promoted its extension inwardly, and after having continued it till the 14th of October, it was finally abandoned. The patient's health, which had hitherto been good, was now somewhat impaired.

The tumor, in a few days, again sprouted out externally, and soon attained its former bulk. It was now attacked, first, with the nitrate of silver, then with the knife, next with the butter of antimony, and, finally, with the actual cautery; the latter of which alone had any effect in repressing it. After continuing it for about six weeks, it had to be laid aside from its mischievous action upon the brain.

In September, 1818, the case fell into the hands of an empiric, who, with the aid of his remedies, removed the whole of the fungus in two weeks. The growth now assumed a new character, numerous pieces of bone, from a quarter to half an inch in thickness, being intermingled with its substance. The applications were continued until they had formed a cavity in the brain capable of receiving a common sized tea-cup. Meanwhile, thir-

teen pieces of bone, as big as an ordinary bean, had come away with the eschars, and the destruction of the cranium had reached three inches in diameter. Severe ptialism supervened, lasting two months. Upon recovering from this, the general health improved so much that the patient determined to visit Philadelphia, for the purpose of consulting Dr. Physick. He accordingly embarked for New Orleans, where, shortly after his arrival, he was attacked with fever, which prostrated him so much that he was obliged to abandon his tour. He lingered out a miserable existence till December, 1819, when he expired, retaining to the last all his intellectual faculties and his power of voluntary motion. What is remarkable, the patient never had, at any period of the disease, a symptom that indicated any affection of the brain, nor was he ever sensible of any of the applications that were made to the fungus. No examination of the body was permitted. A finger, however, introduced into the parts, detected the presence of stalactiform exostoses, extending downwards into the brain, and uniting at the bottom with a bone, which was firm and immovable, and appeared to have been formed expressly to protect the brain from the influence of the fungus. The scalp and outer plate of the cranium, round the tumor, were sound.

The above tumor, of which I can give only a faint outline, was supposed by the patient to have been caused by a blow he received upon the crown of the head by bringing it in contact with the sharp corner of a mantle-piece.

Extirpation of the Parotid Gland.

The only operation of this kind, in Kentucky, was performed in 1841, by Dr. Samuel B. Richardson, of this city. I was present on the occasion, and am happy to say that the result was perfectly successful. The following are the particulars of the case.

The patient was a married lady, aged nearly thirty, the mother of several children, who, about four years before, noticed some enlargement and induration of the right parotid gland, attended with uneasiness and occasional pain. In the autumn of 1840, the tumor was hard and unyielding, smooth on the surface, painful, considerably elevated above the angle of the jaw, and en-

tending upwards in front of the ear, the lobule of which it somewhat displaced. It dipped profoundly inwards between the ramus of the lower jaw and mastoid portion of the temporal bone, admitting of but little motion. The head was considerably and permanently extended upon the spine. Deglutition and mastication were performed with difficulty. The pain in the tumor, especially during the last four weeks, had been constant, at times acute and lancinating, interrupting sleep and appetite, and radiating among the surrounding structures. The general health had always been good prior to the present malady, and the neck and face were free from other enlargements. The patient had already been subject to different modes of treatment, and her reluctance to an operation induced Dr. Richardson to place her upon a protracted course of iodine, both internally and externally. No appreciable benefit resulted. In fact, the disease continued to advance, with an augmentation of all her suffering. She had become weak and thin, and labored under severe constitutional irritation.

On the 19th of February, 1841, with the assistance of Dr. Donne, Dr. Caldwell, and myself, Dr. Richardson performed the following operation. The patient's head and shoulders having been elevated, and the former fully extended, a crucial incision was made through the skin and cellular substance, over the centre of the tumor, near its greatest elevation. The first incision was nearly vertical, extending from a point about three-quarters of an inch in front of the upper attachment of the ear, downwards to about two inches and a half below the angle of the lower jaw; the second cut was nearly at right angles with the preceding. The flaps being dissected up, a double hook was plunged into the body of the tumor, and handed to an assistant, whose skillful use of the instrument greatly facilitated the subsequent steps of the operation. The temporal and masseter divisions of the morbid growth were first elevated, when the mass was forcibly drawn forwards, and its attachments to the surrounding parts severed, care being taken to keep the edge of the knife close to the mastoid portion of the temporal bone, to avoid the external carotid artery. The dissection was then continued inferiorly and anteriorly, behind the ramus of the jaw, chiefly with the handle of the

instrument, until the vessel in question was isolated near its entrance into the parotid. A double ligature was then passed beneath it, and tied at two points, when the artery was divided between them. The deeper attachments were next severed, mainly with the fingers and handle of the scalpel, as far as the pterygoid and styloid muscles and the walls of the pharynx, when the pedicle of the tumor was surrounded by a ligature and tied. The styloid process was partly denuded. The hemorrhage was free in the early stage of the operation, but inconsiderable towards its close. Being satisfied that the whole of the diseased gland was removed, the lips of the wound were brought together by sutures and adhesive strips. During the progress of the operation, the jugular veins were carefully compressed by an assistant, and quite a number of arteries, chiefly branches of the auricular and temporal, were tied.

Acute erysipelas attacked the wound on the second day after the operation, extending to the face and right side of the head, and necessitating the removal of the dressings. A free discharge of bloody and offensive matter followed. In less than a week, the inflammation had nearly subsided, and the greater part of the wound was found to have united. From this time the convalescence was rapid. The right side of the face was paralyzed by the operation, and no saliva was afterwards found to issue from the anterior extremity of the Stenonian duct. Dr. Richardson saw the woman in good health two years after the operation. The paralysis of the face, however, continued, and the mouth on the corresponding side remained unusually dry. The centre of the cicatrice was marked by a deep depression, contrasting remarkably with the rotundity and smoothness of the sound side.

"Dissection," says Dr. Richardson, "demonstrated that the gland had undergone the *fatty degeneration*, nearly in its entire extent. Its cellular arrangement, however, seemed to be preserved, and an oily, greasy fluid exuded from its substance on pressure. Some portions of it were condensed, and the capsule of the gland was much attenuated, being partly ruptured during the operation.

"An interesting case is mentioned by Professor Gross, in his

valuable work on Pathological Anatomy, in which Dr. Parker, then of Cincinnati, removed the parotid gland for a similar degeneration. This, so far as I know, is the first instance of this affection upon record."

Ophthalmic Surgery.

Ophthalmic surgery, one of the most interesting departments of the healing art, has not been neglected by our practitioners. Operations for cataract, artificial pupil, entropion, ectropion and lacrymal fistula have been frequently performed, and with a degree of success highly flattering to Kentucky skill and judgment. Dr. Dudley, in speaking, in his paper on "Calculous Diseases," in the Transylvania Journal of Medicine, of the importance of a due preparation of the system in all surgical operations, incidentally remarks that he had failed in only a solitary case of cataract, from the supervention of inflammation, in a practice of twenty-five years. Few oculists, any where, can boast of such success.

The operation of extraction of the cataract has not, I believe, been often attempted in our State. In my own practice, I have usually, where the circumstances have been propitious, preferred couching to every other process, and, thus far, I have had no reason to regret my choice. I have not been able to learn the nature of the operation generally adopted by Dr. Dudley and the other surgeons of the State. My experience has furnished me with the important practical fact, that the operation for cataract, by the absorbent method, may commonly be performed with little or no risk of inflammation, without preparation of the system, in children under three or four years of age, while such a risk is very great, without preparation, in older subjects.

Extirpation of the ball of the eye, for malignant disease, has occasionally been resorted to, but in no instance, so far as my knowledge extends, with any encouraging results. My own cases, amounting altogether to about eight, have all been followed by a return of the morbid growth, and by the speedy death of the patient. In one instance, that of a Miss Evans, from Muhlenburg county, who had encephaloid disease of the right eye, I ex-

tirpated, in the first instance, the whole of the contents of the orbit, and in less than four weeks I performed a second operation for the removal of the new formation. In a few weeks the disease re-appeared with all its former intensity, and rapidly destroyed the patient. A similar case was brought to me some years ago, from Cincinnati, in the person of a young gentleman, of the name of Murrell, about thirteen years of age, upon whose eye Dr. Mussey had already performed two operations. The disease soon returned after the second operation, and when I saw the patient, a few weeks after, it had made such progress as to preclude the possibility of another resort to the knife.

Very little has been written on this organ by Kentucky surgeons. Almost the only contribution upon the subject is to be found in the first volume of the *Western Journal of Medicine and Surgery*, of which it occupies about thirty-five pages. It is from the pen of Dr. William A. McDowell, formerly of this city, now of Evansville, Indiana, and is entitled "Surgical and Pathological Observations on the Eye." The whole paper is worthy of an attentive perusal. The chief objects which the author had in view in publishing it, were to make known a supposed discovery in the anatomy of the eye, and to give publicity to an operation, the section of the conjunctiva, which he believes to constitute an improvement in the surgical treatment of conjunctivitis.

The new structure described by Dr. McDowell is situated between the conjunctiva and the sclerotica, where it forms a thin, but firm lamella, which the Chairman of your Committee had described sometime previously, in the first edition of his *Elements of Pathological Anatomy*, issued at Boston, in 1839, and which he had been in the habit of exhibiting to his pupils for a number of years prior to that period, under the name of the "ocular fascia." The author, of the paper in question, gives a very clear and graphic account of the texture and relations of this membrane, and of the important part which it plays in the inflammation of the eye, especially in the different varieties of conjunctivitis. It is surprising that this structure should have so long escaped the notice of American and European anatomists.

The greater part of Dr. McDowell's article is taken up with a

consideration of the different varieties of conjunctivitis, of which he has furnished a very excellent account, and for the more inveterate forms of which he proposes the division of the conjunctiva and ocular fascia, with the view of cutting off the supply of blood to the cornea, the sclerotica, and the iris. He recommends the operation, which, it would seem, he has been in the habit of practising for the last twenty years, to be performed with a common tenaculum and a pair of slender scissors, having a delicate probe-point, "a little longer than the extremity of the antagonizing blade." The membranes are elevated with the former of these instruments, while with the latter they are divided entirely round the cornea, from one-eighth to one-fourth of an inch from its connection with the sclerotica. The immediate effects of the operation are, the retraction of the edges of the wound, and a free discharge of blood from the divided vessels, followed by a rapid decrease of the inflammation. The gap left by the knife is gradually repaired by the adhesive process, and is not succeeded by any perceptible cicatrice. The practice here recommended, and to the efficacy of which I bear testimony from personal experience, differs from that of Scarpa, Lawrence, Mackenzie, and others, in being of a more decisive character, and is, therefore, more worthy of imitation in all cases of ophthalmia, attended with infiltration of the cells of the ocular fascia, and an extension of the morbid action to the deep-seated structures of the eye.

Dr. Asbury Evans, of Covington, has sent me the particulars of a case of *congenital cataract*, in a young man, of twenty-one, whom he restored to sight by the operation, by division. The lens in the right eye was very soft, while in the left it was so fluid that the moment the needle entered the capsule, the chambers were suffused with a whitish milky substance. The instrument was immediately withdrawn, as its movements could no longer be perceived. The operation was done twice on each eye. The pupils soon became clear, but for a long time the young man saw objects indistinctly, in consequence, as was thought, of debility of the retina from long disease. The operation was performed in September, 1849, and when Dr. Evans heard from the patient recently, he could, with the aid of glasses, see a squirrel in

the top of the highest tree, and was able to thread a fine cambric needle.

A case, similar to the above, came under my observation in the spring of 1851, in the person of a young girl, of the name of Amanda McGuire, of Mississippi. The cataracts, which had existed from infancy, were mainly capsular, and obstructed vision so much that the patient was wholly unable to perceive objects distinctly. The operation was performed with the needle, first upon one eye, and, in a few weeks, upon the other, and was followed by hardly any inflammation; absorption went on rapidly, and when Miss McGuire left, a few months after, her sight was most excellent.

It was interesting, in this case, to witness the joy which this girl experienced at beholding the different objects that were, from time to time, presented to her notice. Things which she had long been accustomed to distinguish by the sense of touch, were, when placed before her eyes, such entire strangers to her that she was utterly unable to recognize them. She had no definite ideas of form, color, bulk, or distance. The appearance of a cat or dog made the same impression upon the retina as that of an inanimate substance, as a pitcher, tumbler, or bottle. When held before her eyes, she could not tell the difference, but the moment she touched them she recognised them, and expressed her astonishment. She soon learned to know such objects as were used for experimental purposes. Her delight on beholding the moon was unbounded, and this was still further increased, in a short time after, when she was able, on a clear night, to distinguish the stars, as they hung, like living lamps, upon the firmament, dazzling and bewildering her innocent and unsophisticated mind. A more full account of this case will shortly be given to the public.

Polypus of the Nose.

Under this head may be mentioned a case of polypus, reported by Dr. John C. Brent, formerly of this city.* The tumor was of

* Louisville Journal of Medicine and Surgery, No. 1, p. 44, 1838.

unusual size, and occupied the left nostril, affecting the speech and respiration, compressing the nasal duct, and causing frequent and violent paroxysms of sneezing. The extraction was effected by the joint agency of the ligature and forceps; and the narrator lays much stress upon the preparatory treatment, consisting of the daily introduction, for three weeks, of bougies, catheters, and probes, to familiarize the parts to the contact of instruments.—He expresses the opinion that without this treatment the attempts to apply the ligature would have proved abortive. The reporter begs leave to state, that in all his operations, amounting to several dozen, he has never been obliged to resort to the ligature, except when the tumor projected into the fauces; having always been able to accomplish his object with the forceps, and that without any special preparatory treatment. In the case under review, the polypus was attached by a very narrow pedicle, and might, therefore, have been easily extracted by torsion. The narrator does not give the specific character of the tumor.

Excision of the Superior and Inferior Maxillary Bones.

No one in Kentucky, excepting myself, has, I believe, ever removed either of these bones, for disease of their substance. At all events, there is no record, so far as my knowledge extends, of such an operation. I am aware that an attempt was made, some years ago, by an eminent surgeon of this State, to remove a medullary tumor from the antrum of Highmore; but his efforts failed, and the patient, a man, sixty years of age, died shortly afterwards from the effects of the malady.*

I have now removed the superior maxillary bone, either in part, or entirely, seven times, and the inferior maxillary bone, five times; thrice at the temporo-maxillary articulation, and twice at the symphysis. The lower jaw cases have all recovered, and are doing well; while of the upper jaw cases, four have died, two from a recurrence of the disease, for which they were subjected to the knife, one from the effects of pneumonia, and one from the effects of dysentery. The particulars of these cases, together

* Transylvania Medical Journal, February, 1850, p. 329.

with an account of the more frequent diseases of the maxillary bones, and the best method of effecting their removal, will be found in the *Western Journal of Medicine and Surgery*, for September and October, of the present year. The contribution to this department of surgery, thus furnished, comprises nearly seventy-five pages.

Immobility of the Inferior Jaw.

To the abuse of mercury, so common in the United States, but especially in the South-west, surgery is indebted for an extension of its province, or, to use a modern, and somewhat cant expression, for the annexation of a most serious and important class of cases. I allude to what is called, immobility of the lower jaw, caused by ulceration and sloughing of the gums, cheeks, and osseous tissues, in consequence of the inordinate, or, perhaps, I should say, injudicious and unfortunate use of calomel and other preparations of mercury. The persons most subject to this affection, as far as my observation extends, are young children, under ten years of age, of a weak habit, and a scrofulous temperament. Not unfrequently, however, it is observed in those more advanced in life, especially in delicate females, worn out by protracted diseases, such as typhoid and other fevers, or profuse discharges of blood, leading to an impoverished state of the general system. Under such circumstances, the smallest quantity of mercury is often followed by the most horrible consequences; consequences so well known to every member of this Society, that it would be a work of supererogation to describe them. It is for the relief of these effects, so distressing and disfiguring to the poor sufferer, and so disgraceful to the practitioner, that the resources of surgery are called into requisition. Unfortunately, however, neither the art nor the science of this branch of the profession has hitherto been of much avail. My own cases, amounting to eight, have, with three exceptions, been unrewarded with any but the most transient success, notwithstanding the most extensive, thorough, and patient dissection imaginable. In the course of three, four or five weeks, the adhesions were as firm as ever, despite the greatest care to prevent them by the employment of me-

chanical means. My friend, Dr. Samuel B. Richardson, of this city, who seems to have had quite his share of such cases, informs me that he has operated four times, in three with very fair success, and in one with partial relief. All his cases were the effects of mercury. It affords me pleasure to be the humble instrument of communicating to the profession any favorable results of this kind.

Antrum of Highmore.

A case of wound of the superior maxillary sinus, treated by Dr. William H. Donne, of Louisville, and reported by Dr. R. S. Wendell, in the sixth volume of the *Western Journal of Medicine and Surgery*, may be briefly mentioned here, as it possesses extraordinary interest. The patient, a German gardener, forty-two years of age, was struck, in a rencontre, in May, 1840, with a dirk-knife, which entered about an inch above the right superciliary arch, and passed downwards and backwards through the corresponding eye, evacuating its humors, and penetrating the antrum. After recovering from the primary effects of the injury, the patient waited upon Dr. Donne, in August, 1842, stating that for the last six months he had been annoyed by a rough, projecting substance, which he had been informed was a piece of dead bone, but which he believed to be the point of the knife with which he had been wounded, upwards of two years ago. On looking into the mouth a small black speck was seen, about half an inch from the space between the first and second molar teeth. The parts adjacent were somewhat inflamed and tumefied. After dissecting around the speck with a bistoury, down to the palate process of the superior maxillary bone, Dr. Donne was enabled to get a firm hold of it with a pair of curved forceps, with which he extracted, though not without difficulty, a fragment of the blade, one inch and a quarter in length, by three-quarters of an inch in width. A rapid recovery was the consequence.

Dr. Donne has recently informed me that he removed, six months after the above operation, another piece of blade nearly as long as the first. The patient has since remained well.

Staphyloraphy
—

I do not find, by a reference to our periodical literature, any mention of the operation of staphyloraphy by any of our Kentucky surgeons, nor have I received any oral or written intelligence of such an undertaking. The probability, therefore, is that this department of the profession has met with little attention in this part of the United States. If there be any exception to this statement, it is due to myself who have performed this operation four times within the last four years. Of these cases, three were entirely successful, while the other was a partial failure.

My first operation was performed, in the summer of 1848, upon a young lady, aged fourteen, from Paducah, in this State. The cleft had existed from birth, and affected both the head and soft palate. After having pared its edges, the parts were accurately approximated by four points of the interrupted suture, introduced by means of Schweddt's instrument, and perfect union was the consequence, except just at the anterior extremity of the fissure, when there was a complete deficiency of the soft substance. An attempt was afterwards made to close this aperture, which was hardly a line and a half in diameter, by dissecting the mucous membrane from the surrounding parts, and stitching the flaps thus formed evenly together. This also failing, the young lady now wears a small obturator, which, although clumsily constructed, answers the purpose perfectly. Her articulation is much improved, and her condition is most comfortable.

In my second case, that of a young lady, of about fourteen, from Alabama, severe inflammation supervened upon the operation, followed by the premature detachment of the two upper ligatures, and the want of union of the corresponding portion of the fissure. Another effort was made to close the aperture about a week afterwards; but this also failing, and for a similar reason, the patient was sent home. A year subsequently she re-visited Louisville, when two other operations shared the same fate, although every possible precaution had been used to prepare the part and system for the undertaking.

In the winter of 1850, I operated before the medical class of

the University of New York, aided by the late Prof. Pattison, upon a young woman, twenty-four years of age, a resident of Orange county, New York. The success was perfect. Four stitches were introduced, as in the previous case, and allowed to remain there till the end of the fifth day, and the other till the close of the sixth. The patient's system was in a most excellent condition, previous to the operation, and the result was that no undue inflammation followed its execution.

My fourth case occurred last winter, in the person of a young gentleman, of the name of Bowers, who was sent to me by Dr. De Bruhler, of Rockport, Indiana. The operation was performed at my medical clinique, in presence of the medical class of the University of Louisville, and with the kind assistance of Dr. T. G. Richardson. The patient was a man of immense strength, and such was the contraction of the muscles of the palate that it was found almost impossible to finish the operation. The parts, however, were at length satisfactorily approximated by four sutures, and, to my surprise, united nearly in their entire extent by the first intention. A small gap was left a little above the centre of the cleft, which was afterwards partially closed by two stitches. After the patient went home, the little orifice which remained was healed up by the repeated application of nitrate of silver, in the hands of Dr. De Bruhler. Although this patient was copiously bled and purged, as well as thoroughly dieted for ten days, before the operation, such was the inflammatory disposition of his system, that I was obliged to take blood twice afterwards from the arm, and to keep him upon the most rigorous antiphlogistic regimen.

II.—AFFECTIONS OF THE SPINE.

The spine, as is well known, is an object of little surgical interest, at least so far as it concerns the operative part of the science. The principal affections demanding the care of the surgeon are, fractures, dislocations, curvatures and sprains; to which may be added the peculiar malformations distinguished by the name of hydro rachitis, spina-bifida, or cleft spine.

Fractures of the vertebra are occasionally attended with de-

pression of the lamellæ and spinous processes, giving rise to paralysis of those parts of the body which are supplied with nerves by that portion of the spinal cord which lies below the seat of the injury. The records of Surgery furnish several cases, probably altogether eight or ten, in which an attempt was made to relieve the cord, from the pressure thus exerted, by an operation similar to that which is so generally necessary in fracture of the skull, attended with depression of the bone and symptoms of compression of the brain.

The first operation of the kind was performed in the spring of 1814, by the younger Mr. Cline, of London; and, though fatal, the result showed that such a procedure might not only be profitable, but even highly proper.

Thirteen years later, namely, in 1827, a similar operation was undertaken by Dr. Alban G. Smith, formerly of Kentucky, now Alban Goldsmith, of New York, with hardly any better success.*

The case of Dr. Goldsmith is so interesting that I shall offer no apology for giving an abstract of it. A young gentleman, in falling from his horse, struck his back in such a manner as to cause a fracture of several of the upper dorsal vertebra. The accident, which occurred on the 31st March, 1827, was immediately succeeded by paralysis of the muscles of all the extremities, with the exception of those above the elbow-joint. The patient had no control over his bladder and bowels, and was altogether in a most wretched condition. In consultation with Dr. (now Professor) Miller, an operation was agreed upon, and performed on the 5th of October, 1827, as follows:—An incision, from five to six inches in length, was made along the ridges of the vertebræ; and another, which was transverse, and three inches and a quarter in length, at each extremity of this, all down to the bones. The soft parts,—common integuments, muscles and ligaments,—were then dissected up as far as the heads of the transverse processes, close to which Hey's saw was applied, and the lamellæ of the vertebra carefully divided. Considerable assistance was derived in the removal of the pieces, from a small strong pair of

* North American Medical and Surgical Journal, vol. 8, p. 94. Philadelphia, 1829.

pliers or tooth-forceps. The operator took out a part of the spinous processes of the first two vertebræ, half of the third, and the whole of the fourth; the latter being the one which seemed to be most depressed. The tent being placed at the bottom of the wound, the parts were brought together, and the patient put to bed. He had a chill soon afterwards, which was succeeded by a fever, and some bilious symptoms, which readily yielded to a dose of calomel.

Some feeling gradually returned to the extremities; and, for a while, Dr. Smith supposed that the patient would soon entirely recover the use of his muscles. This expectation, however, proved delusive; for in a short time he became as bad as ever. He lingered on in a state of hopeless paralysis until some time in the year 1832, when he expired, from no other cause apparently than the effects of his injury, and without having experienced the least benefit from the operation.

Dr. Smith's report of this case is defective. For the date of the accident, the operation, and the patient's death, together with some of the other circumstances here stated, I am indebted to the politeness of Mr. J. R. Bryant, of Pleasant Hill, Mercer county, Kentucky, who knew the patient intimately, and was familiar with all the details of the case, from first to last. His letter to me is dated September 6th, 1852.

HYDRO-RACHITIS, being generally, and, from its very nature, necessarily, a fatal affection, has been made the subject of frequent reflection and even experiment, with a view to the discovery of some reliable mode of treatment for its radical cure. Unfortunately, however, surgeons are no wiser, in this respect, now than they were centuries ago, when the pathology of this lesion was less understood, and our science was, comparatively, in a state of barbarism. Under these circumstances it is not without pleasure that I call your attention to a novel and ingenious method of treatment, proposed in 1840, by one of the Fathers of the Profession, who, though not a practical surgeon, is thoroughly acquainted with the principles of Surgery. I allude to Professor Drake. The treatment recommended by this distinguished medi-

cal philosopher,* consists in emptying the abnormal sac by a small puncture, and then filling it with blood from the brachial vein, or temporal artery of the little patient, care being taken not to expose the fluid to the contact of the air in its transmission. The retention of a small quantity of serum in the sac would not, Dr. Drake thinks, be disadvantageous, as it would have a tendency to prevent the blood from entering the theca of the spinal cord. The blood thus transferred would soon coagulate; the serum and coloring matter would be absorbed; and the fibrin, gradually becoming organized, would at length fill up and annihilate the sac. By and by, the fibrin itself would be removed, just as in an aneurismal tumor, followed by a radical cure. The injection of blood might be repeated, if necessary, two or three times.

I am not aware that this suggestion has been put in practice by any one, in Kentucky or elsewhere; but, as it is founded upon a thorough knowledge of the nature of hydro-rachitis, and a thorough acquaintance with the principles of physiology and pathology, it is well worthy of trial, and I therefore recommend it to your serious consideration.

III.—AFFECTIONS OF THE NECK AND CHEST.

Tracheotomy in Croup.

The following interesting case, reported in the eleventh volume of the *Western Lancet*, occurred in the practice of Dr. Asbury Evans, of Covington:

Dr. Evans was called on the 5th of February, 1850, to a negro boy, two years old, who had, seven hours before, applied his mouth to the spout of a tea-kettle containing boiling water. He presented all the symptoms of scalded glottis. A physician, already in attendance, had applied three leeches to the child's throat; these Dr. Evans had increased to eight; he then administered ten grains of calomel, and proposed tracheotomy. In consultation this was over ruled, under the mistaken notion that

* *Western Journal of Medicine and Surgery*, vol. 1, p. 363.

the scalding had extended into the lungs. After the lapse of an hour the symptoms were found to be much aggravated; the anxiety, restlessness, stinting of the eye-balls, blueness of the lips, noisy, gasping, croupal cough and respiration, great rapidity of the pulse, distention of the vessels of the neck, and coldness of the extremities, clearly indicated that the child was in imminent peril of suffocation. Dr. Evans thought further delay would be criminal, and therefore proceeded to operate.

He made an incision along the middle line, commencing at the sternum, and reaching an inch and a half upwards; the neck was greatly loaded with fat, and the hemorrhage profuse. As soon as this could be arrested by pressure, an incision was made into the trachea, which could not be seen at the bottom of the wound, and a curved canula introduced. Immediately after this was done the breathing became perfectly easy, and the child fell almost instantly asleep. Calomel was freely given for several days, and at the end of two weeks he was restored to health.

Tapping of the Thorax.

It has long been known to practitioners that pleuritis, both in its acute and chronic forms, occasionally, indeed if not frequently, terminates in the effusion of serum, or of sero-purulent fluid, in such quantity as to render its absorption impossible, and exposes the patient to the hazard of suffocation from the pressure which it exerts upon the lungs, to say nothing of the injurious effects which its presence is calculated to inflict upon the heart and large vessels. For the cure of this affection, technically denominated *empyema*, surgeons, long ago, recommended tapping of the chest, and the operation, although generally unsuccessful, has sometimes eventuated in recovery. A case of the latter description, attended with some unusual symptoms, occurred some years ago in the hands of my friend, Dr. W. C. Sneed, of Frankfort, and is recorded in the *Western Journal of Medicine and Surgery*, for 1845. The patient, a lad, 14 years of age, had an attack of acute pleuro-pneumonia, terminating in a copious effusion of sero-purulent matter on the left side, displacing the heart, and compressing the corresponding lung. A valvular opening was made, with a

common lancet, between the sixth and seventh ribs, near their angle. The fluid, after the first operation, was drawn off with a silver catheter, which was introduced upwards of one hundred times during the progress of the treatment, extending over a period of four months. Altogether not less than fifteen gallons of pus and serum were evacuated. The patient was kept upon a generous diet with wine, and in a temperate atmosphere; circumstances which greatly promoted his recovery. Much benefit was also derived from the use of injections of oak-bark, once a day, into the pleuritic sac.

Appended to Dr. Sneed's communication is a letter from Dr. Reed, of Owenton, Kentucky, detailing the particulars of a similar operation performed upon his own person for a similar affection of the left side. The discharge from the chest continued for two years, and it is estimated that the quantity of matter which escaped in this way, and by the mouth in coughing, amounted to sixty gallons.

Mammary Gland.

I record here, with much pleasure, an operation for the removal of a very large encephaloid tumor of the right breast, by Dr. W. L. Sutton, of Georgetown.* The tumor was nineteen inches and a quarter in circumference at its base, exceedingly painful, soft to the touch, and covered with a dark fungus, the result of a previous puncture, made by a physician under the belief that it contained pus. The patient, a negress, aged 50 years, was much emaciated, and had not enjoyed any sound sleep for seven months; the pulse was frequent and irritable, and the appetite was entirely destroyed; but the bowels were tolerably regular. The disease was of several years' standing. After some preliminary treatment, the tumor was removed with the knife, on the 29th of April, 1846. About a pint of blood was lost in the operation, and three arteries required the ligature. Upon laying down the flaps, it was found that they were too small to cover the

* Western Journal of Medicine and Surgery, third series, vol. 1, p. 489, 1848.

entire wound; the portion which remained exposed was four inches in one direction, by an inch and a half in the other, and was dressed with a tent spread with eerate. By the 7th of May the flaps had united by the first intention, and by the 29th of the month the raw surface had healed over, execept at a small point, and the general health was mueh improved. When the ease was reported in April, 1848, two years after the operation, there was no return of the disease, and the woman was perfectly well.

From a careful dissection of the tumor after extirpation, Dr. Sutton thinks that there can be no doubt that it was of a genuine encephaloid eharacter. It was of the eolor of the brain, but a little less eonsistent, and was invested by a thin eapsule of eondensed eellular tissue. If his inferenee is eorreect, and there is no reason to question it, the ease is a very interesting one, as showing how mueh may oeasionally be done by an operation even where the eireumstanees which preede are apparently of the most desperate natnre.

In November, 1843, Dr. Joshua B. Flint,* of this eity, removed from a lady, aged about 25 years, a fungus degeneration of the right mamma. The disease had existed several months; and the tumor had been punetured a week previously, the opening being followed by the eharacteristic fungoid growth, which, at the time of the operation, was already half as large as a fist, and giving rise to exhausting hemorrhage, rapidly threatening a fatal termination. The integuments of the breast were so extensively involved that enough eould not be preserved to eover the whole wound, a considerable portion of which had to heal by granulation. The restoration was slow; and during the progress of the cure this portion of the wound assumed several times a suspicious appearanee; but finally, under the use of simple dressings, and the administration of tonies, the woman eompletely reeovered, remaining well up to April, 1850, at the time of the operator's report, and having, in the meantime, given birth to two healthy children. The morbid product exhibited, under the mieroscope, the eharacteristic strueture of fungus hematodes.

Prof. B. W. Dudley, in speaking of carcinoma of the mammary

* Transactions of the American Medical Association, vol. 3, p. 337.

gland, holds the following language: "I have never removed a scirrhus breast but with a recurrence of the disease at a subsequent period. I have witnessed the healing of a carcinomatous ulcer, as large as a man's hand, within a month, under the influence of a fervid imagination, and, just as the last point was expected to cicatrize, the force of the imagination gave way, the ulcer re-opened, and the patient died in a few weeks. I have kept the carcinomatous action in check for years by severe abstinence, but have never seen it cured."*

In regard to this subject, my own experience entirely coincides with that of Dr. Dudley. All my earlier operations, save a solitary one, have terminated unfavorably, and I am so well satisfied that this result will generally happen, that I have of late years repeatedly declined all interference of the kind. My conviction, founded upon considerable experience, is, that patients will, on an average, live quite as long, if, indeed, not longer, if the disease be permitted to pursue its course, than when an attempt is made to arrest it with the knife. By strict attention to the diet, bowels, and general health, taking care to maintain this constantly as nearly as possible to the natural standard, the morbid growth may often be kept in abeyance for several years.†

IV.—AFFECTIONS OF THE ABDOMINAL ORGANS.

Foreign Bodies in the Stomach.

Foreign substances, of a very singular character, sometimes find their way into the stomach, from which they are frequently extracted with great difficulty. A most remarkable instance of this description, calling forth extraordinary ingenuity on the part of the surgeon, occurred in 1814, in the practice of Dr. Bright, formerly of New Castle, and now of Louisville. The particulars are too interesting not to be mentioned on this occasion.

"A child near New Castle, in this State, playing with a fish-hook, incautiously swallowed it, while the line to which it was appended hung out of the mouth. The mother instantly seized

* Transactions of the American Medical Association, vol. 3, p. 331.

† Ibid—vol. 3. p. 334.

its hands, and sent for Dr. Bright, who arrived soon after this embarrassing occurrence. Learning that the hook was one of very small size, he made a hole through a rifle-ball, and having passed the line through it, he dropped the ball into the child's throat, which was immediately swallowed. He then, by means of the line, withdrew the hook from the stomach, whilst the bullet prevented its point from injuring the cardia or œsophagus."*

My friend, Prof. Gibson, of the University of Pennsylvania, evidently refers to this case in his work on Surgery; but he attributes it, erroneously, to a New England surgeon. Dr. Bright's case occurred when he was quite a young man, and while he was a student in Transylvania University, in 1823, he communicated the particulars of it to the late Prof. Brown, of Lexington.

It is known that foreign substances, accidentally introduced into the stomach and other organs, will occasionally migrate to a great distance, and be at length eliminated through the skin. A very remarkable example of this kind occurred, not long ago, in the practice of Dr. N. B. Anderson of this city.† A girl, aged 19 years, on the 20th of April, 1849, in a fit of laughter accidentally swallowed a large brass pin and a medium sized needle.—Nothing of moment occurred for nearly three weeks, when pain and uneasiness began to be felt at the cardiac orifice of the stomach, where it continued for three months, when it gradually changed its position, and fixed itself upon the inferior lobe of the left lung. In this situation it remained for about nine months, without any disturbance of the respiratory function, with the exception of occasional cough and slight hemoptysis. The pain then shifted to the glenoid cavity of the scapula, and then to the axilla, impeding the movements of the superior extremity. The limb continued in this position until December, 1850, when the pain and uneasy feeling gradually extended down the arm, and at length settled at the elbow, in the belly of the biceps muscle. Here a dark spot formed, quite sensitive to the touch, which soon terminated in an abscess, filled with bloody matter, and contain-

* American Medical Recorder, vol. 6, p. 581. Philadelphia—1823.

† Western Journal of Medicine and Surgery, third series, vol. 8, p. 200, 1851.

ing the foreign bodies, situated about half an inch apart. The pin was discolored, but the needle retained its polished aspect.

Thus it would seem that these two bodies travelled side by side from the stomach through the diaphragm, and thence through the lungs and walls of the chest to the superior extremity, where they finally excited suppuration, leading to their extraction by the knife.

Hernia.

In the treatment of hernia, Kentucky may justly claim the credit of having effected one most valuable improvement. The truss, invented by Mr. Stagner, and afterwards modified by Dr. Hood, has acquired a world-wide celebrity. Although Stagner was not a professional man, yet from the deep interest which he took in the subject, not less than on account of the intrinsic utility of his labors, his name deserves honorable mention in connection with it.

Mr. Stagner was himself affected with a rupture, and was obliged to wear a truss, which one day gave way at the pad.—He immediately resorted to a piece of wood, as a temporary substitute, and found that it answered a much better purpose in preventing the descent of the bowel than the material previously used. After having worn it for some time, he was surprised to observe that the hernia did not re-appear, and that a permanent cure had been effected.*

The instrument which he invented was valuable chiefly on account of its pad, which is a piece of wood closely resembling the pad of a common truss; but a good deal smaller, more acuminate at the extremity near the spring, and quite rugose upon its convex surface. The object which he had in view, in constructing the pad in this manner, was to excite irritation in the parts upon which it pressed, and thereby promote their adhesion and consolidation. In this condition the truss fell into the hands of Dr. Hood, who soon perceived its defects, and at once proceeded to

* Drake's West. Jour. Med. and Phys. Sciences, vol. 2, p. 315. 2d hexade. 1835.

remedy them ; a task for which his mechanical genius, and his intimate knowledge of the subject of hernia, well qualified him. He extended his improvements to all parts of the instrument, but devoted his particular attention to the block, to which he gave a smooth surface, at the same time that he adapted its form, with great accuracy, to the different canals and outlets which it is designed to support. Thus constructed, the truss of Dr. Hood was found to fulfil every indication to which such a contrivance can be applied, its employment was no longer, as in the hands of its originator, productive of severe pain and other evils, but it served the purpose of a most excellent retentive apparatus, while by its gentle and uniform pressure it was admirably calculated to effect, in many cases, a radical cure by promoting the effusion of plastic matter in and around the opening through which the descent takes place.

The value of the invention of Stagner and Hood, in this department of surgery, can be fully appreciated by those only who are familiar with the nature and treatment of hernia, and of the state of our knowledge thereof prior to their time. The trusses which were in use in this country, and, indeed, also in Europe, when they entered upon their labors, were, as is well known, of the most clumsy, ill-contrived, and imperfect description. The pads were uniformly made of soft material, and therefore did not answer the purpose even of retaining the bowel within the abdomen ; and, as to a permanent cure, no surgeon hardly ever thought of effecting it with an instrument of this kind. I conceive that our profession is very largely indebted to Stagner and Hood, especially the latter, for the valuable service they have rendered to the cause of humanity, as well as to the science of surgery, by their labors and ingenuity. Although the instrument which bears their names was subsequently modified by the late Dr. Chase, of Philadelphia, yet there is no doubt that that gentleman was indebted to it for all the improvements possessed by his own trusses. There is but one regret connected with the inventions of Stagner and Hood, and that is that they should have been patented ; an objection, however, which applies equally to Chase's instrument, and, in fact, to most contrivances of the kind in this and other countries.

In Dr. Lawson's "Western Lancet," for September, 1845, Dr. E. L. Dudley gives "Several Cases of Hernia with Remarks," of unusual interest. The first was that of a man who had inguinal hernia, for which he had been obliged to wear a truss for several years. The tumor was inordinately large and painful, and the patient had been seized, about eighteen hours previously, with symptoms of strangulation. His wife had returned the bowel before Dr. Dudley's arrival, but the symptoms were unrelieved, and death took place during the succeeding night. On dissection, two feet of the ileum were found mortified; the sac remained on the outside of the ring; and there was no external appearance leading to the inference that the bowel was in this diseased condition.

The second case, also one of inguinal hernia, occurred in the hands of Professor B. W. Dudley. The tumor was returned, but the symptoms of strangulation persisted; the bowels remained obstinately torpid under the influence of the most active cathartics, and the contents of the stomach and upper intestine were occasionally discharged by vomiting. After several days the pain ceased, and on the eighteenth day a copious alvine dejection took place, accompanied by the discharge of the serous sac of the hernia and eighteen inches of bowel, in a mortified state. The patient lived for a number of months, seeming to experience no inconvenience from his loss, and died of another malady.

In the third case, the patient had labored under strangulation for three days, the bowels were obstinately constipated, and the most skilful efforts at reduction had been employed in vain. An operation exposed the cœcum, three inches of which had protruded behind the peritonæum, and become adherent to the surrounding parts, requiring the use of the knife to liberate it. The wound was completely united by the fourth day, and the woman rapidly recovered her health and strength.

In the fourth case, the tumor, about the size of a hen's egg, was situated in the inguinal canal, but had not passed the external ring. It was exquisitely painful, and the slightest touch of the finger produced insupportable distress. A vein in the arm was opened, the patient being in the recumbent posture, and the blood was permitted to flow until the system was completely relaxed.

After the loss of four pounds of blood, the bowel receded under very slight pressure.

"In reviewing these cases, it will be remarked," says the reporter, "that, in the first, the tumor was reduced in twelve hours after its protrusion, and the bowel was as completely destroyed as if a ligature had been drawn around it. In the second, reduction was accomplished in much less time, but the sac constituting the stricture was cut off, and the patient singularly recovered.—In the third, the bowel was not returned for three days, and the patient recovered, after an operation, in the most happy manner."

The following interesting case of strangulated scrotal hernia, occurred in the practice of Dr. W. C. Sneed, of Frankfort:

On the 28th day of April, 1844, Dr. Sneed was called to a negro man, about 30 years of age, for a strangulated hernia, which had existed for several hours without yielding to the taxis, which had been made by Mr. (now Dr.) Blanton; and learned on his arrival that the patient had been the subject of reducible scrotal hernia, from his boyhood, but that it had never before been strangulated, and although it was very large, filling the entire scrotum on the left side, it had never given him much trouble, and he had been enabled, up to this time, to do the work of an ordinary hand in a brick yard.

The effort at reduction by the taxis was renewed, and all the ordinary means of relaxing the system resorted to, and persevered in for several hours, without affording any relief. Injections failed to relieve the distention of the lower bowel, and although the patient had been relaxed by blood letting, tartar emetic and tobacco injections, until he was unable to raise his hand to his head, the strangulation remained as permanent as when first seen. The bowel above the strangulation was considerably distended and painful, caused, no doubt, by the free use of sour buttermilk, of which he had partaken very freely early in the morning.

It was between 10 and 11 o'clock, A. M., that Dr. Sneed first saw the patient, and his efforts were continued until 3 or 4 o'clock, P. M., before he despaired of giving him relief without an operation. A consultation being held, it was decided to renew the

efforts at reduction, which were continued until night without success; it was then agreed to give him a free opiate, and let him rest till morning. Up to this time the patient bore the treatment well and there were no indications of sinking, nor tenderness of the parts, which indicated mortification of the bowel. After recovery from the effects of the relaxants, and the great fatigue produced by the efforts at reduction the pulse rose to about the natural standard, and the opiate prescribed, produced a pleasant sleep which lasted for several hours. Dr. Blanton remained with the case during the night, but made no further efforts for his relief.

At 9 o'clock, on the 29th, we again met, and a further effort at reduction was urged by the consulting physicians. The warm bath, blood-letting, opiates in large doses, and ice to the tumor were used, and after waiting several hours without finding any indications of relief, it was then determined to resort to the knife.

At 4 o'clock, P. M., thirty-two hours after Dr. Sneed first saw him, he proceeded to perform the operation. The scrotal tumor was now about the size of the head of an ordinary child at birth, and was unyielding and rather tender to the touch. The pulse was still good, but the patient complained of great sickness of the stomach, and was troubled, to some extent, with hiccough and occasional efforts at vomiting.

An incision, about eight inches long, extending from about two inches above the upper edge of Poupart's ligament to the lower half of the scrotum, was made through the skin, and the cellular tissue carefully dissected up until the sac was opened. An ounce or two of serum escaped from the sac when opened, and the bowel was found firmly packed in the cavity. After the sac was sufficiently exposed to admit the finger, search was made for the stricture, which was found at the lower and internal margin of the external inguinal ring. A bistoury was passed up and the stricture cut, but to his great surprise the bowel could not be passed back after many efforts. The operator was, therefore, forced to turn the strangulated portion of the bowel out on a clean silk handkerchief, and then seek for the upper portion and return it, as best he could. Seventeen inches of the large bowel

by measurement, including the whole of the sigmoid flexure, were confined in the sac, and when thus exposed, it was found that the difficulty in returning the bowel was caused by an adhesion of its peritoneal portion of to that of the abdomen, in extent about the size of a thumb nail. This was torn apart, when the bowel was passed within the abdomen, without difficulty. The wound was then closed by the interrupted suture, adhesive strips, and bandage, and the patient put to bed.

The peritoneal coat of the bowel was in a highly congested state, but showed no signs of mortification. The patient bore the operation well, and expressed great relief after he had been properly cared for.

On the fifth day, traumatic erysipelas made its appearance, and continued for a short time. It was preceded by peritonitis, which began a day or two after the operation, and persisted, to a greater or less extent, for two weeks. The patient passed at one time more than a tea-cup-full of purulent matter from his bowels by the rectum, and large quantities of pus could be pressed out through the wound from the peritoneal cavity, and from between the abdominal muscles, for several weeks after the operation. The wound in the scrotum healed very kindly, and in six weeks after the operation, the man was able to ride to the house of his mistress, Mrs. Rudd, in Springfield, Washington county. The cure was perfect and permanent.

The points of interest in this case are these: First—the strangulation of so large an amount of the bowel, for such a length of time, without terminating in mortification. Second—the difficulty of reduction, caused by the adhesion of a portion of the bowel to the walls of the abdomen. Third—the discharge of pus by the rectum, showing, in all probability, that the portion of the bowel previously adhering had ulcerated through, and that the pus passed by the rectum was from the peritoneal cavity; and, Fourth—the perfect success of the operation; the patient having less inconvenience, and being more useful since than at any time previous to the operation.

Dr. Samuel B. Richardson, of this city, has communicated to me an outline of the particulars of six operations for strangulated hernia. Four of the cases were males; and all, except one,

resulted favorably. Five were inguinal and scrotal, and one, that of a female, was femoral. Four were examples of enterocele, one of epiplocele, and one of entero-epiplocele. Of these cases the first four were all reducible, while the other two were irreducible. Of the latter, the case of epiplocele was large and ancient; and in the other, that is, the case of entero-epiplocele, the omentum was adherent, while the bowel, having recently descended, was entirely free. The fatal case was a large and old hernia of the omentum, which had been strangulated seventy-two hours, when the operation was performed. Dr. Richardson resorted to the knife in twelve hours after he first saw the patient. Death happened on the eleventh day after the operation, from erysipelas of the wound and inflammation of the peritonæum.

The general success in the above cases is ascribed by Dr. Richardson to a prompt resort to the knife, after a short, but fair trial of the taxis and other known means. The accuracy of this conclusion cannot be called in question by any one at all familiar with this subject. It has been stated by an able writer and an accomplished surgeon, the late Mr. Hey, of England, that he had often had occasion to lament that he had performed this operation too late, but never that he had performed it too soon.*

In the tenth volume of the American Journal of the Medical Science, † Dr. W. L. Sutton, of Georgetown, has "*Two cases of Femoral Hernia, with some remarks*," which are of peculiar interest, especially the first; in which the stricture was divided through the intestine, a finger having been previously inserted as a guide to the bistoury. The patient, a lady fifty years of age, had been long afflicted with hernia, which finally become strangulated, and reduced her almost to a moribund condition. The tumor being laid open, the bowel was found gangrenous for about three inches, and adherent to the neck of the sac. Various attempts were made to divide the stricture in the usual way; but these failing, on account of the impossibility of insinuating even a probe between the sac and the obstruction, a finger was passed *within* the gut, and upon this a probe-pointed bistoury, with

* Practical Observations in Surgery, p. 143.

† New Series, p. 251, 1845.

which the part was readily divided. The woman remained in a precarious condition for sometime; but finally recovered, the wound healing, and the general health being excellent. She was still alive in January, 1852.

This case is one of unusual interest on account of the novel method of dividing the stricture, and addresses itself, with great force, to the consideration of the operator. I am not aware that it has a parallel in the history of surgery.

The other case was also one of femoral hernia, the protruded part consisting of a piece of omentum, about the size of a nutmeg. Strangulation took place, and the man died, nearly a fortnight after, without an operation, after repeated, but fruitless efforts at the taxis. The disease was of recent standing, and was occasioned by straining at stool; the tumor was not tender, much less painful, and there was an entire absence, throughout, of nausea and vomiting. The stricture was found, after death, at the inner edge of Poupart's ligament, and the strangulated omentum was universally adherent to the inner surface of the sac, the small intestine, in the neighborhood, being extensively mortified. Dr. Sutton, in commenting upon this case, says: "I do not know of any authority which could justify an operation at either time when I saw him; and yet I believe that a successful operation at the first or second visit would have saved his life."

The *diagnosis* of strangulated hernia is not always very clear; hence, the disease is occasionally mistaken for colic, or intussusception, and its true nature is revealed only after death. An example of this description has been contributed by Dr. L. C. Ray, of Paris, under the title of "History of an obscure case of Strangulated Bowel," in the Transylvania Medical Journal, for December, 1849. When the patient was first seen by Dr. Ray, three days after the attack, he had hiccough, troublesome eructations, constipation of the bowels, pain, tenderness, and fulness of the abdomen, intense thirst, and a dry, coated tongue. The pulse was seventy, soft and compressible. A small hard tumor existed in the right groin, which the man said had been there for five or six months, and which, as it was not unusually sore or tender, was regarded merely as enlarged lymphatic ganglion. The symptoms progressed; and on the fifth day stercoraceous vomit-

ing was superadded. A consultation was now held, and it was decided that there was no hernia, as it "lacked all the outward manifestations of the disease." The swelling in the groin became more tender; soon it felt as if it contained fluid and air; and on the eleventh day an opening was made into it, giving vent to foetid gas, followed by four ounces of pus and feculent matter. Death occurred on the fourteenth day. The cause of the obstruction was found to be a small knuckle of the ileum at the femoral ring, where it was bound tightly down by adhesive matter, and presented two openings, permitting a discharge of fæces. The bowel was much thickened and inflamed, but not entirely occluded, as there was room enough within for the passage of a common sized catheter.

It is evident that this was a case of concealed femoral hernia, and it is to be regretted that an incision was not made upon the tumor in the groin, at an early stage of the complaint, when the patient was in a condition to be saved. The rule of practice, in all cases of tumor of the groin, accompanied by obstinate constipation, stercoraceous vomiting, and other symptoms of strangulation, is to cut down upon the swelling, and thus ascertain its precise character. This procedure, if hernia really exist, removes all doubt, while, if the obstruction is occasioned by other causes, it cannot be productive of any serious mischief.

Some attention has been paid by the physicians of Kentucky to the *radical treatment* of hernia. Some years ago, a very respectable graduate of the University of Louisville, Dr. Bowman, of Harrodsburg, showed me an instrument for injecting the parts immediately around the abdominal canals and apertures with a weak solution of iodine and other articles. It was constructed upon the principles of an ordinary syringe, and was provided with an extremely delicate nozzle, intended to be introduced through a small opening in the skin. The object of the injection, which if free from danger and unattended with pain, is to excite an effusion of plastic matter in the parts already mentioned, in the hope that it may be followed by their adhesion and consolidation. It should be aided by the pressure of a well constructed truss, worn day and night. Dr. Bowman had employed this practice, at the time he called my attention to it, in probably six

or eight cases, about one-half of which had been successful. I am not aware that he has published an account of his experience.

Anodynes have long been employed for the relief of strangulated hernia, sometimes successfully, at other times unavailingly. Dr. Blanton, of Hardin county, in a communication in the *Western Journal of Medicine and Surgery*, for October, 1848, gives the particulars of two cases of the affection in which he used morphine, with the happiest effect. In one of the cases, the strangulation had existed for forty-eight hours, in spite of every effort at reduction; in the other, the disease was more recent, and the remedy was resorted to at once. In both, relaxation of the muscles soon followed, and the bowel was easily restored to its natural situation.

In connection with hernia, allusion may be made here to *wounds of the intestines*; a topic which has engaged much of my attention, and which is well calculated to excite a deep interest in every surgical practitioner. In looking over the records of Kentucky surgery, I have been able to find only one case of this lesion. It occurred in the practice of my young friend, the late Dr. J. D. McBrayer, of Harrodsburg, a gentleman of great worth and of no ordinary professional promise. The wound in the bowel was about four lines in length, and was closed with a single interrupted suture, performed with a common sewing needle and a silk thread. The small intestines protruded to the extent of about two feet, and were reduced with some difficulty. The edges of the wound in the abdomen were drawn together by three stitches, supported by adhesive strips, a compress and roller. The patient, a negro, thirty years of age, was able to walk about on the twentieth day, and in six weeks he resumed his ordinary business.

I trust it will not be regarded as immodest in me, if I allude here, for a moment, to my own labors, the more especially as they were undertaken with the direct view of elucidating the subject under consideration. It is known, perhaps, to most of the members of this Association, that I performed, about ten years ago, a series of experiments upon dogs, amounting altogether to seventy-two, for the purpose of ascertaining, if possible, first, the nature of these injuries, secondly, their mode of reparation, and

thirdly, the best manner of treating them. Nearly two years were spent in these investigations, the results of which were finally embodied in a series of articles, published, at first, in the *Western Journal of Medicine and Surgery*, and, afterwards, in a separate volume of nearly two hundred pages, under the title of "An Experimental and Critical Inquiry into the Nature and Treatment of Wounds of the Intestines." It is illustrated by numerous engravings, most of which are original, and has appended to it an elaborate chapter on artificial cases, exhibiting an account of the various modes of treatment of this loathsome affection, and a description of a new instrument for dividing the septum between the two ends of the bowel. As this work has been a number of years before the profession, any further allusion to it here, would be improper.

Under the head of affections of the bowels, may be mentioned a very interesting and instructive case of Amussat's operation for *artificial anus*, communicated to me by Professor Bush, of Lexington. The operation was performed, in December, 1847, upon a lady, aged thirty years, for complete occlusion of the rectum, attended with enormous distention of the abdomen and the most excruciating pains. For ten days immediately preceding the operation, nothing had passed the bowels. The patient being placed upon her right side, in an easy and comfortable position, Dr. Bush commenced the operation by making a transverse incision, extending from near the extremity of the transverse process of the third lumbar vertebræ, about three inches, through the skin, fascia, and muscles of the left lumbar fossa. The cavity of the abdomen was thus laid open behind the peritonæum, and the descending colon, rendered unusually prominent by its distended condition, fairly exposed, uncovered by the serous reflexions passing off from its sides. A strong curved needle, armed with a double ligature, was now passed into the centre of the bowel as it appeared at the bottom of the wound; the tube was then drawn slightly forwards, and the crucial incision made into it, when the operation was completed by stitching each flap, by a single suture, to the two angles and two sides of the external wound. No hemorrhage attended the operation, which was

executed with great facility. An enormous quantity of feces and gas escaped, to the immediate relief and comfort of the patient.

The wound was healed by the ninth day, leaving a beautiful valve-like opening between the skin and mucous membrane of the bowel. The ligatures were now removed, and the artificial anus covered with a simple "compress pad." Although the case had gone on well up to this time, unfavorable symptoms now showed themselves, which progressed from bad to worse until the fourteenth day, when death put an end to the poor woman's suffering. The disease necessitating the operation was cancer of the terminal portion of the sigmoid flexure of the colon.

Excision of the Spleen.

The surgical practice of Kentucky furnishes two cases of partial excision of the spleen; one by Dr. Daniel C. Caldwell,* of Russellville, and the other by Dr. William Byrd Powell,† formerly of Newport, now of Memphis.

In the first case, the patient, a negro, was stabbed with a large knife, on the left side, between the last true and the first false rib, "about the point of their greatest convexity." Though the opening thus made an oblong body, from three to four inches in length, protruded, and which was supposed by Dr. Caldwell and the attending physician to be the small extremity of the pancreas; but which, judging from all the circumstances of the case, could have been nothing else than a portion of the spleen. An attempt to replace the organ into the abdomen was made the day after the accident; but, this failing, the protruded part, now in a state of strangulation, was cut off with a bistoury, after which the edges of the wound in the skin were brought together with adhesive strips. No hemorrhage followed the operation; and the man, whose age is not mentioned, soon recovered.

In the case of Dr. Powell, that of a man of thirty, the wound was situated on the left side, between the second and third false

* Transylvania Journal of Medicine and the Associate Sciences, vol. 1, p. 116. Lexington—1826.

† American Journal of the Medical Sciences, vol. 1, p. 481. Philadelphia—1828.

ribs, about four inches from the spine, and was inflicted by a knife, or large dirk, passing downward, inward and forward, into the cavity of the abdomen. After cleansing the wound, which was covered with soot and flour, to arrest the hemorrhage, a portion of the spleen, nearly two inches in length, and having a considerable slit at its extremity, was found to protrude through it, and to be so firmly embraced by its edges as to render it impossible to replace it. As it was late in the evening when Dr. Powell first saw the case, he concluded to wait until the next morning, at 9 o'clock, when the projecting part was encircled by a strong piece of tendon, and amputated close to the surface of the body. All attempts to restore the remainder of the organ to its natural situation proving fruitless, the external wound was dressed in the usual manner; and the patient being put to bed, was bled at the arm to the extent of a pound and a half, and placed upon light diet. On the third day, high constitutional excitement manifested itself, followed, in a short time, by all the symptoms of peritoneal inflammation, for the relief of which, the ordinary remedies were employed. All treatment was discontinued at the end of a fortnight, when the wound was nearly cicatrized; and nine months afterwards, when Dr. Powell met the patient, he was in the enjoyment of excellent health.

V.—AFFECTIONS OF THE PELVIC ORGANS.

Lithotomy and Calculous Diseases.

In no department of Surgery has Kentucky acquired more renown than in the treatment of calculous diseases. The operations that have been performed for the removal of stone from the bladder nearly equal, if, indeed, they do not exceed, all the operations of lithotomy in the other States of the Union. The gentleman, Professor Dudley, of Lexington, who stands at the head of this department of Surgery, not only in Kentucky but in America, if, in fact, not in the world, has alone operated two hundred and seven times; and, if we add to these cases those that have occurred in the hands of other surgeons, the aggregate will amount to nearly, if not quite, four hundred. It would afford me great

pleasure to give, with exact accuracy, the number of operations of lithotomy that have been performed by different members of the profession in different parts of the State, as well as their results; but, for the determination of this question, so interesting and important to the profession, I have not, I regret to say, been able to obtain the requisite data, notwithstanding no pains have been spared to do so.

It is positively known that the late Dr. Ephraim McDowell, of Danville, had operated thirty-two times several years before he died. Dr. Alban G. Smith, now Dr. Goldsmith, *thinks* that, during his residence in Kentucky, he had over fifty cases.* Dr. Gardner, of Woodsonville, has reported to me fourteen cases. Dr. Bush, of Lexington, has operated six times; Dr. John C. Richardson, and Dr. E. L. Dudley, of the same city, each once. Dr. John Shackleford, of Maysville, has had four cases; and Dr. Craig, of Stanford, two. Dr. W. A. McDowell, during his residence at Danville, operated twice. Dr. Henry Miller, of this city, has had two cases. Dr. John Hardin, while practising medicine and surgery at Greensburg, operated five times; Dr. L. P. Yandell has operated four times; Dr. William H. Donne, once; Dr. Samuel B. Richardson, twice; and Dr. Joshua B. Flint, — times.† My own cases amount to thirty. Dr. Walter Brashear, formerly of Bardstown, occasionally operated for stone in the bladder, but how frequently I am unable to say. I am in possession of a few of the particulars of one of his cases, which I shall take occasion to relate in their proper place. Dr. D. W. Yandell, late of this city, has performed lithotomy four times.

Reduced to figures, the number of cases of lithotomy, positively known to have occurred in Kentucky, stands about thus:

Dr. B. W. Dudley,	207	Dr. John C. Richardson,	1
“ E. McDowell,	32	“ John Craig,	2
“ A. Goldsmith, uncertain,	50	“ W. H. Donne,	1
“ W. Gardner,	14	“ Walter Brashear,	0
“ J. M. Bush,	6	“ E. L. Dudley,	1
“ John Shackleford,	4	“ D. W. Yandell,	4
“ Henry Miller,	2	“ L. P. Yandell,	4
“ John Hardin,	5	“ S. D. Gross,	30
“ S. B. Richardson,	2		

* Letter to the Reporter.

† This gentleman has not honored me with an account of his cases.

It is an interesting fact, with reference to the etiology of calculous affections, that most of the above cases occurred among the inhabitants of Kentucky and Tennessee. The remainder were brought from Alabama, Mississippi, Indiana, Illinois, Missouri, Ohio, and Virginia; a few, perhaps, from other States. Nearly all occurred in white males, the number of blacks being, comparatively, very small. The great majority of the patients resided in limestone regions.

The following facts and cases, illustrative of the operation of lithotomy in Kentucky, have been kindly communicated to me by different gentlemen, during the progress of my labors. It is a source of regret to me, that none of the particulars of the late Dr. Ephraim McDowell's operations have been transmitted to us.

I have it in my power, through the politeness of Dr. S. M. Bemiss, of Bloomfield, to present you with a brief account of one of Dr. Brashear's cases, accompanied with the calculus. The details are, unfortunately, imperfect.

The operation was performed in the summer of 1811, in the neighborhood of Bloomfield, and in the presence of Dr. Harrison, of Bardstown, Dr. John Bemiss, and Dr. Merrifield, the latter of whom is the only surviving witness. The subject, Mr. Falkerson, near sixty years of age, had suffered so much, for some months previous to the operation, that his constitution was greatly impaired in consequence. Strong doubts seem to have been entertained by Dr. Brashear, respecting his ability to endure an operation of such magnitude; but his patient was tired of suffering, and wished to be relieved by death, or a successful removal of his calculus. Dr. Merrifield thinks that the operation was performed on the left side of the perinæum, with the gorget. After the proper incisions were made, the forceps were introduced, and an attempt made to grasp the stone, but the blades of the instrument could not be expanded sufficiently to admit it. The patient soon becoming exhausted, the operator was obliged to desist from any protracted efforts at extraction, hoping, perhaps, that he might be able to renew them shortly afterwards. In this, however, he was disappointed; for Falkerson died during the ensuing night, and Dr. Merrifield removed the calculus,

which I here exhibit to you, after his death. Its weight was originally considerably over seven ounces; but by attrition, drilling, and the evaporation of its fluid constituents, it has been reduced so much as to amount, at present, only to a little more than four ounces. It is of an oblong, ovoidal shape, rough on the surface, and laminated in its structure, but what its composition is, I know not. Its short circumference is six inches; the long, seven and a half.

Dr. Merrifield speaks in high terms of the skill and celerity with which Dr. Brashear accomplished his operation, and thinks that the debility and exhaustion of the patient were the only obstacles to the successful removal of the calculus.

In 1808, Dr. Brashear performed the operation of lithotomy upon a boy, about twelve years of age. The case, which presented nothing unusual, was perfectly successful.*

Dr. William A. McDowell, during his residence at Danville, many years ago, operated twice for stone in the bladder. The first case, which was remarkable on account of the early union of the wound, was that of a youth of eighteen, cut with the gorget. No urine passed through the perinæum after the operation, the parts having closed by the first intention. The recovery was rapid and uninterrupted.

In the other case, the patient, a lady, aged thirty-three, suffered great torments from the calculous affection, in addition to incontinence of urine. In March, 1820, four stones, about the size of walnuts, were extracted from the bladder by the lateral operation. The wound healed without difficulty, and with relief from all annoyances, save the incontinence of urine, which continued up to the time of Dr. McDowell's removal to Virginia, three months afterwards.

In February, 1826, Dr. John C. Richardson, of Lexington, performed the lateral operation of lithotomy upon a youth of twenty-one, the only instruments used being a scalpel and a staff grooved on its left side. The stone was of large size, and could not be extracted without the division of both sides of the prostate, in the manner since so strenuously recommended by the late

* MS. letter of R. B. Brashear, Esq., to the reporter.

Mr. Liston. It was of the ammoniaco-magnesian phosphate variety, weighed five ounces and a fourth, and was three inches and a half in its long, by two inches and a quarter in its short diameter. The case, as I am informed by Dr. Samuel B. Richardson, of this city, a brother of the operator, was perfectly successful.

Dr. Henry Miller, in 1830, during his residence at Harrodsburg, operated upon a mulatto boy, aged three years and a half, for stone in the bladder. He belonged to Capt. Wm. Robinson, of Anderson county, Kentucky, and had suffered from symptoms of calculus since very early infancy. The stone was quite friable, and broke into a number of fragments in the extraction. The boy recovered, and had no return of the disease during the two or three years he was under Dr. Miller's observation.

In August, 1849, Dr. Miller operated upon a young girl, in her fifteenth year, from Meade county, Kentucky. After having given chloroform, he introduced a pair of common curved polypus forceps into the bladder, seized and extracted a very rough stone, resembling a Jamestown bur, weighing 264 grains, and measuring a little over an inch in diameter. The lacerated mucous lining of the urethra hung out at the meatus, after the operation, and was clipped off with the scissors. She had no bad symptoms, and went home in a few days. She has remained well ever since.

Dr. John Shackelford, of Maysville, writes that he has operated four times for stone in the bladder, and in every instance successfully. One of his patients, who became afterwards intemperate, suffers occasionally from incontinence of urine.

Dr. S. B. Richardson, of this city, during his residence at Lexington, operated twice for stone in the bladder. In one of the cases he removed three calculi, two of which were so large as almost to fill the organ. The patient, three years and a half old, had a speedy recovery, although she labored, at the time, under serious disease of the rectum and bladder.

Dr. L. P. Yandell has operated for stone in the bladder, four times, using the gorget in every instance. The first three cases were successful; the fourth, a little boy, four years old, in bad health, died, never having fully recovered from the shock of the operation.

Dr. D. W. Yandell has performed the lateral operation of lithotomy four times—in all with the bistoury, according to Liston's method, and in all with success. One of the subjects was a man, aged twenty years, who had suffered long with stone; the other three were boys, in their fourth year. The recovery in each case was prompt and perfect. The patients all resided in Tennessee.

Dr. Gardner, of Woodsonville, has performed the operation of lithotomy fourteen times; using the knife, and adopting the lateral method. All his patients, save one, recovered. Death, in this case, was produced, as was supposed, by the accidental fracture of the calculus, in the attempt at extraetion, thereby necessitating its removal piece-meal; a work of great pain, difficulty, and danger. Acute cystitis immediately supervened, and resisting every effort to arrest it, terminated fatally on the fourth day after the operation. The patient was a man, aged twenty-five.

Of the above cases, four were from Barren county, two from Warren, two from Green, one from Taylor, one from Edmondson, one from Hardin, and three from Hart, the residence of the operator. In all these counties the limestone formation prevails, and limestone water is universally used for drinking and cooking purposes.

All the patients were males, and all, save one, were white. One was a blaeksmith, and one the son of a merehant; all the rest, execept one, were farmers, or the children of farmers. Two of the patients were brothers. There was not a single instance of double or multiple caleulus, and only one case in which a stone formed after the operation.

The ages varied from five to forty-two, as follows: 5, 7, 7, 7, 7, 7, 9, 10½, 16, 17, 19, 20, 25, 42.

In one of his cases, Dr. Gardner, after having, in vain, endeavored to extract the stone by the lateral operation, was obliged to open the bladder above the pubes. The patient was a man, aged forty-two years, for the last fifteen of which he had suffered under symptoms of the disease. Having incised the perinæum, the operator was absolutely unable even to introduce the forceps into the bladder, much less to expand them over the coneretion, the weight of which proved to be nine ounces, while it measured nine inches and a quarter in its greater circumference, by three

and a half in diameter. Undaunted by so unexpected an occurrence, Dr. Gardner at once determined to perform the supra-pubic operation; and after some difficulty, owing chiefly to the large bulk of the stone and the firm contraction of the bladder, succeeded in accomplishing his object. The patient recovered slowly, but without much trouble, and by the eighteenth day was able to walk about his room. The upper wound soon healed; but a small fistulous aperture remained in the perinæum for some months, when it finally closed. Two years and a half after the operation, upon sounding the man, Dr. Gardner found that the bladder again contained a large calculus. A short time after this, he was seized with an attack of intermittent fever, which, added to his other afflictions, soon carried him off. The body was not examined.*

Several papers upon calculous affections have appeared from the pen of Kentucky surgeons and physicians. Of these, the first, in point of time, as well as in respect of interest, is by Professor Dudley, under the title of "Observations on the Nature and Treatment of Calculous Diseases." It was published in 1836, in the ninth volume of the *Transylvania Journal of Medicine and the Associate Sciences*, of which it occupies thirty-seven pages, and is based upon the author's personal experience in one hundred and forty-five cases, all of which, except ten, had been subjected to the knife. The paper is particularly valuable, inasmuch as it contains a full account of Dr. Dudley's mode of operating, the manner of preparing his patients, the after treatment, and the result of his success.

A year subsequently to this, appeared, in the tenth volume of the periodical just cited, Dr. James M. Bush's "Observations on the Operation of Lithotomy; illustrated by cases from the practice of Professor B. W. Dudley." As its title imports, it is occupied with an account of the practice usually pursued by the Lexington professor in the treatment of calculous affections, and its

* Dr. Gardner has kindly furnished me with a detail of all his cases, which, as Chairman of the Committee on "Lithotomy and Calculous Diseases," I shall present to the Society at its annual meeting at Lexington, in October, 1853.—When his paper reached me, a few days ago, the present report had already attained so great a bulk, that I did not feel authorized to give it in full.

chief interest consists in affording additional evidence of the extraordinary success of this gentleman's operations, which, at the time of its publication, amounted to one hundred and fifty-three. Dr. Bush does not contribute any facts from his own observations and experience.

In 1846, Dr. Robert Peter, published, in the fifth volume of the *Western Lancet*, an elaborate account of his "Chemical Examination of the Urinary Calculi in the Museum of the Medical Department of Transylvania University, with remarks on the relative frequency of calculus in Lexington, Kentucky, and the probable causes." As I shall have occasion to refer to this essay at a future stage of this report, it is unnecessary to say any thing further respecting it here, than that it is apparently characterized by great accuracy of observation, and that it embraces a more compact history of the subject than any paper that has ever been published on the chemical analysis of urinary calculi in this country. It is not improper to add that this paper was afterwards re-printed, nearly entire, along with an "Analysis of Three Urinary Calculi," in the *Transylvania Medical Journal*, for December, 1849.

It will be seen that these contributions, the only ones of any importance that have appeared upon the subject, are from the pens of the Lexington professors; a circumstance which is not at all surprising when it is recollected that Dr. Dudley, until recently, monopolized the calculous practice of Kentucky. During a residence of twelve years in Louisville, my practice has furnished me with only thirty cases of lithotomy, the particulars of twenty-four of which are detailed, with great minuteness, in my *Treatise on the Urinary Organs*, published at Philadelphia, in 1851. Within the last eighteen months, I have operated for stone six times, four times successfully, and twice with fatal results. The latter cases present facts of great interest, with reference to lithotomy, but the limits of this report will not permit an account of them.

In the remarks which I am about to offer, respecting Dr. Dudley's mode of operating for stone in the bladder, and his manner of preparing his patients, together with his after-treatment and results, I shall avail myself freely of his own paper and of that

of Dr. Bush, already quoted. In doing this, I do not deem it necessary always to indicate by special references, the particular document employed, as this would lead to useless citations.

Dr. Dudley's favorite instrument is the gorget, and the one which he prefers is that invented by Mr. Cline, of London, which he thinks superior to every other. In all his operations, he has used but two sizes, the smaller seven-tenths, the latter eight-tenths of an inch broad in the blade. With the latter instrument, he has made an incision admitting of the safe extraction of a calculus, three inches and a half in its long diameter, and two and a half in the short, by eleven inches in circumference. He has never used the scalpel or bistoury. His mode of entering the bladder does not differ from that of other lithotomists. He directs the staff to be held firmly in a perpendicular direction, and insists upon the importance of making a small incision into the prostate gland and neck of the bladder, being satisfied it is much better calculated, than a free division of the parts, to prevent urinary infiltration and peritonæal inflammation. When the calculus is unusually voluminous, or very disproportionate to the incision, he prefers to dilate, and even lacerate the prostate gland to cutting it. He thinks it better and safer to extract by force than to resort a second time to the knife. His extensive experience has entirely convinced him that the danger, so generally ascribed to violence inflicted upon the deeper structures, by laceration, has been greatly over-rated, and that it is not at all comparable with the beneficial effects of such a procedure. The stone, where disproportionately large, should be extracted slowly and gradually, not violently, in order that the tissues may yield to the dilatory and tractive efforts, and not be dragged away; a result which has never happened in Dr. Dudley's practice.

The different steps of the *operation*, as performed by Dr. Dudley, are thus described by Dr. Bush. "The convexity of the instrument—the staff—being distinctly felt in the median line of the perinæum, the operator, seated in a convenient chair, with his instruments spread on his right, proceeds to the operation. While his left hand controls the scrotum and perinæum, the right makes an incision, with a middle size convex edge scalpel, beginning a little below the root of the scrotum, and terminating

an inch, more or less, behind the verge of anus, and the inner edge of the left tuber ischii. This cut divides skin, subcutaneous tissues, and perinæal fascia. The second stroke of the knife is not so extensive; it divides only the posterior fibres of the accelerator urinæ and transverse perinæi muscles. Always at this stage of the operation, if the perinæum be remarkably concave, presenting an inclined plane, or if the arch of the pubes be very much contracted, Professor Dudley introduces the left middle finger into the rectum, and draws off the bowel to the right. The fire-finger then placed in the wound conducts the scalpel through the membranous part of the urethra into the groove of the staff, cutting from the rectum towards the bulb. The scalpel is now laid aside and the gorget is taken up, the beautiful instrument of Mr. Cline, with its cutting edge towards the pubic arch, its beak is made to engage the groove of the staff, while the assistant resigns the latter to the surgeon's left hand, who for an instant playing the two instruments against each other, lateralizes the former, turning its cutting edge to the left, poises it a moment, perfectly horizontal, before he plunges through the prostate into the bladder. At the same moment the gorget is passed with the right, the left hand depresses the handle of the staff; the bladder being opened, the staff is withdrawn, and the surgeon's fore-finger of the left hand, directed by the gorget, is passed into the bladder, and the instrument withdrawn; the wound in the neck is dilated, forceps introduced, the calculus seized, and by steady, firm, and dilatory movements, from below upwards, and from side to side, the operation is completed by the extraction of the stone. The bladder is now cautiously explored with the scoop, and if found clear, is filled with warm water from a syringe; the patient is untied, turned to his left side, and thus put to bed, and is required to maintain the position for from two to four days."

The *time* occupied in performing the operation varies with the circumstances of the case. Dr. Dudley makes it a principle never to operate against time, and he never allows himself to be thrown off his guard, but is always prepared for any difficulties or emergencies that may arise. While he has occasionally completed the operation in the short space of forty seconds, from the

moment of commencing his first incision, he has sometimes consumed twenty minutes in extracting an unusually large calculus.

Great stress is laid upon the *preparatory treatment*. In some cases hardly any thing beyond a little rest and a dose of cathartic medicine is necessary; but whenever there is much local distress, with derangement of the alimentary tube, and more or less febrile disturbance, more energetic measures are required before the instrument is passed into the bladder. Nauseating doses of ipecacuanha or of tartrate of antimony and potash are exhibited, to reduce the pulse and relax the cutaneous surface; aided, occasionally, by the warm bath, and even by emetics. Cathartics are never omitted. Particular attention is paid to the patient's diet, both as it respects its quality and quantity; none but the blandest articles are allowed, and all excesses are carefully interdicted. In a word, the utmost caution is used, in all cases, not to employ the knife until the entire system is in the most perfect condition, as far as such a thing is possible, when a foreign body existed in the urinary bladder. The period occupied in the preliminary treatment varies from a few days to two or three months, according to the circumstances of each individual case.

When the bladder has been cleared of its contents, the patient is put to bed, and kept upon his left side, until the surface of the wound is thoroughly glazed with plastic lymph. This usually happens within the first forty-eight hours, and serves as a most effectual barrier against urinary infiltration. Nothing is interposed between the lips of the wound, and the parts are not disturbed, even with sponge and warm water, for twenty-four or thirty-six hours. The period of confinement after the operation varies; and it is desirable that the greatest attention should be bestowed upon the general health, which should always be maintained in the best possible condition. The patient should be kept perfectly quiet, that the wound may close and cicatrize as speedily as practicable, and in order, also, that it may not re-open, in consequence of ulcerative absorption. Dr. Dudley gives a case in which, from neglect of this precaution, the parts experienced this effect not less than four or five times in as many months after the operation.

In the one hundred and thirty-five cases referred to in Dr.

Dudley's paper, *union* by the first intention was effected in eight; of these, six had each a single calculus; one had two of considerable size, requiring unusual effort to extract them; and the other had thirteen. No reason is assigned why union of the wound did not occur in some of the other cases, which were apparently quite in as favorable a condition for undergoing this process as those just mentioned. The adhesive process does not depend, the author thinks, as much upon the keen edge of the operator's instrument; upon any direct correspondence between the size of the wound and the volume of the stone; or upon the small number of times the forceps are introduced into the bladder, with a view to the seizure and extraction of the calculus; as upon the state of the patient's general health before and after the operation, a proper regulation of his diet, his position in bed, and upon the attention bestowed upon the regular performance of the various important functions of the body, throughout the entire period of his confinement.

Varieties in Lithotomy.

It has been already seen that Dr. Dudley has always employed the gorget in his operations; so far as I am able to learn, in every one. Dr. Ephraim McDowell, in his early career, used the same instrument; but subsequently he exchanged it for the scalpel. Dr. Alban Goldsmith, during his residence in Kentucky, always employed the knife. The same method has been pursued by nearly all the other lithotomists of the State. I have myself never operated in any other manner.

The *bi-lateral* operation, as suggested by Celsus and Le Dran, and perfected by Chaussier, Beclard, Dupuytren, and other modern surgeons, has never been performed in Kentucky. The *high* operation has been executed only once. The operator was Dr. William H. Gardner, of Woodsonville. His patient was a man, 42 years of age, who had suffered under symptoms of stone for fifteen years. Supposing that he should be able to extract the calculus through the perinæum, Dr. Gardner, on the 14th of April, 1844, performed the ordinary lateral operation, but after enlarging the incisions to the greatest possible extent, consistent

with the safety of his patient, he found that it was impossible to remove the foreign body, such was its immense volume. He at once determined to open the bladder above the pubes. The wound was from four and a half to five inches in length, and after much difficulty he extracted a pear-shaped calculus, weighing nine ounces, and measuring nine inches and a quarter in its greatest circumference by three and a half in diameter. Notwithstanding this double operation, and the violence necessarily inflicted upon the parts, the patient slowly recovered, and in less than three weeks was able to walk about his room. He lived upwards of two years and a half after the operation, when he died from the effects of a return of the disease.

Lithotripsy.

The operation of lithotripsy was first performed in Kentucky by Dr. Alban G. Smith, now Dr. Alban Goldsmith, of New York. I regret that I do not know the date of his operation, but this must have been prior to the autumn of 1833, when he removed to Cincinnati. He repeated the operation once during his residence in Kentucky.

In 1843, Dr. William A. McDowell, formerly of this city, now of Evansville, Indiana,* also performed this operation. His patient was a young man, eighteen years of age, who had suffered from symptoms of stone in the bladder from his earliest infancy. The urethra having been fully dilated by three graduated bougies of "seasoned" slippery elm bark, the stone was seized with Heurteloup's instrument, and crushed at four sittings; the first being on the 30th of August, and the last on the 16th of September. The calculus, as indicated by the scale of the instrument, was twelve lines in diameter, and of great firmness. The operation was productive of little pain, and the patient was never for a moment confined to his bed in consequence of it. He walked to Dr. McDowell's office, a distance of nearly a mile, to each sitting, and immediately after returned in the same manner. The cure was complete.

* Western Journal of Medicine and Surgery, vol. 8, p. 364.

A similar operation was successfully performed, in 1846, by Professor Bush, of Lexington, upon a man, twenty-five years of age, with Charriere's modification of Heurteloup's instrument. The stone, which was remarkably hard, and of moderate size, was completely crushed, and evacuated at the twelfth sitting. During the whole time, it was never necessary to allow more than one day to intervene between the various operations, so favorable was the condition both of the bladder and of the general system.*

Soon after the above case was reported, Dr. Bush, as he informs me, performed a similar operation upon an old gentleman, aged seventy-five years, who had suffered from stone for many years. He encountered no difficulty in using the lithotrite twice, each time crushing a large calculus. These two essays were made about two days apart. Within twenty-four hours after the last, painful paroxysms were developed, and these continued to increase, becoming more and more frequent, and resisting all the means, both local and general, that were directed for their relief, until the man was worn out, with the most intense suffering, about four weeks after the last operation. The autopsy exhibited the whole interior of the bladder extensively inflamed, much thickened and ulcerated, with several large abscesses in the coats of the organ, one of which was discharging pus, and contained a large fragment of the broken calculus. Dr. Bush says he is satisfied that this case could have been cured by lithotomy.

Chemical Analysis of Vesical Calculi.

The following summary of his chemical examinations of human vesical concretions, made at various times, up to the present period, by Dr. Robert Peter, of Lexington, forms an appropriate appendix to our remarks on calculous affections. The results are stated in the Professor's own language. The concretions examined were a small portion of those removed by Prof. B. W. Dudley, in his 207 operations, with some extracted by Profs. Bush, E. L. Dudley, and J. B. Flint. The patients were principally from the west, and a large proportion of them from Kentucky.

* Lithotomy and Lithotripsy, p. 7. Lexington, 1846.

The whole number examined, exclusive of some sent me from Ohio by Prof. Davis, and several taken from the bladder of lower animals, is 106; which were extracted from 71 patients.

CALCULI

CONTAINED IN THE TRANSYLVANIA UNIVERSITY MEDICAL MUSEUM,
Lexington, Ky.; arranged according to their chemical composition.

I.—NUCLEUS URIC ACID.—36 *Calculi* from 6 Cases.

A.—Nearly all Uric Acid,	- - - - -	35
Uric Acid, nearly pure,	- - - - -	1
Uric Acid with little Urate of Ammonia,	- - - - -	2
Uric Acid with ur. am., ur. lime and ur. soda	31	} all from one patient.
Uric Acid with ur. am. and oxalate of lime,	1	
	—	
		35
B.—Body different from the nucleus,	- - - - -	1
Body fusible phosphates; Crust do. with ox. lime,	- - - - -	1

II.—NUCLEUS URATE OF AMMONIA.—41 *Calculi* from 38 Cases.

A.—Urate of Ammonia, nearly pure,	- - - - -	12
Ur. Am. mixed with ox. lime in the exterior,	3	
Ur. Am. mixed with phosphates,	- - - - -	2
Ur. Am. mixed with a crust of oxalate of lime	} 2	
beautifully polished,		
Ur. Am. mixed with a crust of amorp. ox. lime,	3	
Ur. Am. mixed with a crust of phosphates,	2	
	—	
		12
B.—Bodies differing from the nuclei,	- - - - -	29
<i>Body.</i>	<i>Crust.</i>	
Oxalate of lime,	Fusible phosphates,	8
Oxalate of lime,	Ox. lime and trace phosphs.	2
Ur. am. and ox. lime,	Ox. lime,	1
Ur. am. and ox. lime,	Phosphates and clear crystals of oxalate of lime,	} 2
Ur. am. and ox. lime,	Fusible phosphates,	
Ur. am., ur. ac. and ox. l.,	Phosphates,	1
Ur. acid and ur. am.	Ox. lime and phosphates,	2
Ur. am. and fusible ph.,	Fusible phosphates,	6
Ur. am. and fusible ph.,	Oxalate of lime,	1
Ur. ac. and fusible ph.,	Fusible and ox. lime,	1

Ox. lime and phosphates,	Fusible,	1
Ox. lime and phosphates,	Clear crystals ox. lime,	1
Fusible phosphates,	Fusible,	1
		—
		29

III.—NUCLEUS OXALATE OF LIME.—14 *Calculi* from 14 *Cases*.

A.—*Oxalate of Lime, nearly pure*, - - - - - 9

<i>Body.</i>	<i>Crust.</i>	
Oxalate of lime,	Oxalate of lime,	2
Oxalate of lime,	Phos. and cryst. ox. lime,	4
Oxalate of lime,	Same with same phos.,	1
Oxalate of lime,	Fusible phosphates,	1
Ox. lime and ur. ammonia,	Clear crystals of lime,	1
		—
		9

B.—*Bodies different from the nuclei*, - - - - - 5

<i>Body.</i>	<i>Crust.</i>	
Ox. lime and phosphates,	Mixed phosphates,	2
Ur. acid and fusible,	Fusible phosphates,	1
Ur. acid and urates,	Clear crystals of lime,	1
Ur. am. and phosphates,	Phosphates,	1
		—
		5

IV.—NUCLEUS EARTHY PHOSPHATES.—8 *Calculi* from 8 *Cases*.

A.—*Phosphates nearly pure*, - - - - - 8

Triple phosphates,	2
Fusible phosphates,	1
Mixed phosphates,	1
Fusible, with trace oxalate lime,	1
Fusible, with trace ur. am.,	1
<i>Body</i> , phos. lime, <i>Crust</i> , fusible,	1
“ fusible, “ ox. lime,	1

V.—NUCLEUS A FOREIGN SUBSTANCE.—4 *Calculi* from 3 *Cases*.

A.—*Nucleus a small bean*, - - - - - 2

Bodies, triple phosphate, with little phos. lime and ur. ammonia; *Crust*, the same.

B.—*Nucleus a decayed bone*, - - - - - 1
Body, fusible phosphates, with trace of uric acid and urates; *Cortex*, the same.

C.—*Nucleus a small film of animal matter*, - - - - - 1
 [Probably the remains of a clot of blood.]
Body and Cortex principally fusible phosphates. *

VI.—NUCLEUS CYSTINE.—3 *Calculi from 2 Cases.*

All Cystine, - - - - - 3

[Two of these were in the collection of Prof. B. W. Dudley, history unknown; the third was removed by Prof. J. B. Flint, of Louisville, in May last, from the bladder of a gentleman from Tennessee.]

SUMMARY.

	Calculi.	Cases	PER CT of the CASES
Nucleus uric acid, - - - - -	36	6	8.45
Nucleus urate of ammonia, - - - - -	41	38	53.52
Nucleus oxalate of lime, - - - - -	14	14	19.71
Nucleus phosphates, - - - - -	8	8	11.26
Nucleus foreign substance, - - - - -	4	3	4.22
Nucleus cystine, - - - - -	3	2	2.81
	106	71	

In a paper on this subject, published by Dr. Peter, in 1846, (in the *Western Lancet*, Vol. v, No. 4,) he attempted, by an examination of the statistics of calculi, to ascertain the influence of limestone strata and limestone water on the frequency and composition of these troublesome concretions. The conclusions arrived at were,

1. That calculous disease is more frequent in limestone than in freestone regions.

2. That there is a larger proportion of phosphatic and oxalate of lime deposits,—more urate of ammonia nuclei and less of pure uric acid, in the limestone, than in freestone regions, or where the water is not contaminated with carbonate of lime.

These conclusions have been corroborated by investigation in other regions; especially in Ohio, and by the examinations which have been made by Dr. Peter, since the publication of

* Removed, six months after a previous operation, by Prof. J. M. Bush.

the paper above mentioned. It is a subject worthy of more extensive investigation.

Stricture of the Urethra.

The subject of stricture of the urethra does not appear to have occupied much of the attention of the surgeons of Kentucky, at least, if we may judge from what has been written upon it. The only contribution to this department of pathology and practice, so far as my information extends, is from the pen of Dr. E. L. Dudley, under the singular title of "Interesting Case of Stricture of the Urethra."* This case occurred in the hands of Professor Benjamin W. Dudley, and the circumstances attending it are detailed with much minuteness. Preceding the account of it, is an outline of the practice usually pursued by Professor Dudley in the treatment of this affection, which I deem of sufficient interest to give at some length. That I may not misrepresent the writer, I shall give his remarks in his own language.

"Professor Dudley," says the author, "never resorts to the use of the sound or bougie, except in his first examination, and then to detect the nature and extent of the disease. His success in the treatment of strictures, and by a system that dispenses with the torture of bougies and caustic, is a subject of intense interest to the profession. Arguing from the facts that stricture may frequently exist for years without producing much uneasiness; that the paroxysm of suffering most usually, I might say, universally, succeeds intemperance or exposure, and that the retention caused by the determination of constitutional excitement to the disordered part, is relieved as soon as the system is thoroughly relaxed by bleeding and the warm bath, and the action of the absorbents excited, he inferred that local means, alone, are not sufficient for the cure of the disease; and was induced to employ a method of treatment which proposes the removal, the radical cure of the stricture, by acting upon the general system in such a way as to induce thorough absorption of the indurated material constituting the disease. Reflecting upon the fact that the induration

* Lawson's Western Lancet, for September, 1845, p. 199. Lexington, Ky.

remaining after the ulcer is healed, or a boil matured, is speedily removed by attenuating the system, and inducing the operation of that beautiful law by which new and adventitious deposits are removed by absorption with more facility than healthily organized and normal portions of the system, he thought it difficult to conceive why strictures, differing in no respect from the indurations just mentioned, all being produced by the deposition of coagulable lymph, should not, like them, be susceptible of cure, and by similar means. He has, for a number of years, been in the habit of treating these cases by the plan deduced from the above considerations, and a very extensive experience has confirmed his confidence in it. Heretofore, the treatment of strictures has, at best, been but palliative. A radical cure has been a circumstance so rare as scarcely ever to have been anticipated. There is one fact in the history of this disease, which would seem to prove its intimate connection with a morbid state of the general system. The existence of stricture is no evidence of the violence of the preceding disorder. It seems, on the contrary, to be more commonly a sequence of those cases of gonorrhea, which were not regarded as serious, and were checked by the abortive treatment. In almost every instance, which has come under my observation during the last five years, the patient, suffering with contracted urethra, had been cured of gonorrhea by the familiar remedies and by injection. Often the balsams alone had been employed, and checked the urethral discharge in a few days, the patient believing himself happily cured, until, from some cause, the stricture became irritated and produced retention, or great difficulty and distress in evacuating the contents of the bladder. It may be granted that many cases of gonorrhea, cured after this method, are not followed by stricture. This, as far as I have observed, has been a very rare sequence of long standing chronic cases. How are we to account for these facts? Why does stricture present itself in one instance, while others enjoy an immunity? There is, doubtless, an element, efficient in the production of these results, that is not generally recognized; and here, as in estimating the causes of the varying conditions or results of ordinary inflammation of other parts, our attention must be directed to the general condition of the patient, and es-

pecially of the chylopoetic organs. The universal sympathies of these organs, and the acknowledged influence of digestive disorder upon local complaints, are perfectly understood, and regarded by every physician in the treatment of other diseases. In addition to the stimulating effect exercised upon the kidneys by balsam copaiba, squill, nitre, &c., it is well known that these remedies, after having been taken for a few days, disorder the stomach very much. That the entire system is very injuriously affected by these articles, is proven by the discolored skin, and irritable stomach and bowels that always attend their habitual use. The derangement produced by the treatment is a cause, I have no doubt, of stricture in many instances. This seems to be conclusively established by the existence of the disease where no local applications had ever been made, and balsam constituted the sole remedy, many of which have been under Professor Dudley's charge."

The plan of treatment usually pursued by Professor Dudley in this disease, is well illustrated in the case of a gentleman referred to by the author, who had been the subject of stricture for thirteen years, during the greater portion of which he constantly used the bougie to dilate his urethra and promote the discharge of urine. He had enlargement of the left testicle, the stream of urine was much reduced, and, at times, he labored under retention. He had had gonorrhea twelve or fifteen years previous to his visit to Lexington, which was checked permanently by the use of balsam, and he was now, upon his arrival, very much reduced in flesh, with all the symptoms of a highly disordered state of the alimentary canal. The regular course of treatment was preceded by emetics, given every other day for two weeks. "The effect of these was not of a satisfactory nature; the contents of the stomach were thrown up, without presenting any appearance of a salutary influence upon the liver. Professor Dudley discontinued the emetics, and substituted nightly doses of calomel, containing a small portion of ipecac, when the calomel failed to act gently upon the bowels. The effect of this prescription was most favorable. A few days after commencing its use, the secretions from the liver became profuse, and for several weeks Mr. R. discharged a large quantity of black and green matter. It was

interesting to observe the manifest influence of this free action of the liver upon the stricture. While the emetics were continued, failing to produce healthful impressions upon the liver, and until the bile began to flow from the use of the calomel and ipecac, no beneficial change was observed in the urinary canal, and the patient was obliged to resort occasionally to the use of the bougie, in order to relieve his bladder; but from the moment that he had the first bilious discharge, the stream from the urethra increased, the bladder was evacuated with more ease, and the swelling in the testicle diminished. "This," adds the writer, "is a result which I have witnessed in very many instances since I have been in the habit of attending to Prof. Dudley's cases."

The case here detailed was perfectly cured in three months, the canal being restored to its natural caliber. Several months after his return to the South, the patient informed Professor Dudley that he continued well. "Two young gentlemen," proceeds the author, "had been under Professor Dudley's charge within the last six months, and were cured by the same treatment. Two gentlemen, from Mississippi, were treated with similar success during the summer of 1849, and numerous other cases might be cited to swell the list."

It is much to be regretted that Dr. E. L. Dudley, the author of the paper under consideration, has not informed us whether the mode of treatment, so successfully pursued by his distinguished kinsman, and so much esteemed by him, is applicable to stricture of the urethra in all its forms and stages, to the hard and callous as well as the more mild and simple. The inference, it is true, plainly is, that it is, and that neither of the gentlemen ever resort to any other; but it would have been more satisfactory if the matter had been stated in direct terms. My experience in the treatment of stricture of the urethra has been extensive, and in my work on the Urinary Organs, published at Philadelphia, in 1851, I have fully expressed my views of the nature and management of this affection. By a reference to that treatise, it will be found, that, while great stress is laid upon a proper preliminary and concomitant treatment, no reliance is placed upon diet and calomel, alone or with ipecacuanha, as exclusive curative agents. No one can doubt that such a mode of management might an-

swer very well in the more simple forms of contraction; but to trust to it in cases of long standing, hard, callous, and almost impassible stricture, would, I conceive, be as unphilosophical as it is certainly opposed to the experience of the best practitioners, both of this country and of Europe. It has been my lot, during my residence in Kentucky, to see quite a number of cases treated upon this principle, and I can solemnly aver that not a single one of them was permanently relieved.

The practice which I have generally found most successful in the treatment of this disease is that by dilatation; aided, or not, as the case may be, by cauterization and incision. The latter operation I seldom omit when the contraction is very firm, and within a very reasonable distance of the external orifice of the urethra. Under such circumstances, I have often succeeded in entering the bladder with the largest sized catheter, in a few seconds, in cases where all other modes of treatment had been unavailingly employed for months, and even years. Whatever plan I adopt, it is a golden rule with me, always to pay the utmost attention to the patient's diet and bowels. Ample experience has satisfied me that mercurial purgatives, administered every third or fourth night during the treatment, are of the greatest benefit, in promoting the absorption of the organized matter upon the presence of which the contraction depends. In very old and protracted cases, I do not hesitate to produce slight pyalism, taking care to keep it up for several weeks.

When the stricture is situated in the membranous portion of the urethra, and is exceedingly narrow and callous, hardly any procedure, short of the division of the perinæum, will afford permanent relief. In such a case, the urethrotome is an uncertain and unsafe instrument; the process of dilatation is apt to be attended with the formation of false passages; and the mercurial treatment would not effect a thorough cure in a thousand years. The proper operation, under such circumstances, is that now generally known as the *perinæal section*, so much resorted to by Mr. Syme, of Edinburgh, by whom it has, perhaps, been more frequently executed than by any other surgeon. So far as my information extends, this operation has been performed only five

times in Kentucky, once by Dr. William Caldwell, formerly of Columbia, now of Louisville, and four times by myself.

My first case occurred about eleven years ago, in this city, in a young man, twenty-one years of age, from the State of Illinois. He had ruptured his urethra several years previously, by a fall astride the post of a chair. The parts gradually healed, leaving a narrow fistulous opening far back in the perinæum, through which, with great difficulty, he voided his urine, none passing by the natural channel. No catheter, even of the smallest size, could be introduced into the bladder. The operation of dividing the stricture, in which I was aided by my friend and late colleague, Professor Cobb, was performed with hardly any trouble, and the patient remained perfectly well for five or six months, when, in consequence of neglecting the use of the catheter, a relapse gradually took place, and his symptoms became as bad as ever.*

Within the last eighteen months I have repeated this operation upon three gentlemen, for organic stricture, the effect of gonorrhea, and in all with the most gratifying results. In none of the cases was it possible to pass an instrument into the bladder, before the operation, owing to the remarkable and long continued contraction of the canal. The parts were freely divided along the raphe of the perinæum, and healed over a large sized catheter.

In Dr. Caldwell's case, an account of which is contained in the *Western Journal of Medicine and Surgery*, for June, 1846, and in which the stricture was likewise exceedingly tight and impassable by catheters and bougies, the success was also complete. The patient, who had been reduced almost to the last extremity by his protracted suffering, rapidly recovered, and was able, more than two years afterwards, to void his urine in a free, full stream, like a man in perfect health.

Foreign Body in the Urethra.

Under the present division of our subject may be mentioned a singular instance of irritability of the urethra and bladder, pro-

* See the reporter's *Treatise on the Injuries and Diseases of the Bladder, Prostate Gland and Urethra*, p. 649.

duced by the lodgement in the former of a hair.* A married gentleman, about fifty years old, of irreproachable character, was seized with a tickling, itching sensation in the fore part of the canal, which, after having continued for three months, became much aggravated. The anterior third of the penis now began to swell, and to be red and painful, and there was difficulty of urinating, with a frequent inclination to empty the bladder. Febrile symptoms supervened; the desire to micturate increased; and there was a slight discharge of pus, and, at times, also, of blood, from the urethra. Things remained in this condition for about four days, when the patient discovered a hair hanging four or five inches from the orifice of the canal. From the sensation produced by pulling the hair, which was nineteen inches long, he thought the seat of irritation was an inch and a half from the end of the penis.

In addition to the above phenomena, there was slight chordee for a day before the cause was removed; and, for a short time after this event, the symptoms closely resembled those of gonorrhea, for which, indeed, they might have been easily mistaken. The patient gradually recovered, but not without undergoing constitutional treatment. What is very remarkable, is that this man, about fifteen years before, experienced a tickling about the head of the penis, similar to that recently felt, from a similar cause, only that the hair was not so long, and there was no inflammation of the urethra.

Was the hair, which gave rise to the symptoms above described, generated in the urinary organs, or was it entangled by the penis, and gradually drawn into the urethra by the remarkable suction power of this tube? The case, I must confess, is one of great interest to me.

A.—AFFECTIONS OF THE GENITAL ORGANS IN THE MALE.

Hydrocele.

In the *Transylvania Journal of Medicine and the Associate*

* Communicated to the *Transylvania Medical Journal*, for October, 1850, by Dr. W. H. Shotridge.

Sciences, for 1828, is a long and elaborate article on Hydrocele, by Prof. Dudley, of Lexington, pointing out the nature and causes of this disease, together with what the writer claims as a new operation for its radical cure. He also describes, under the name of encysted hydrocele, a new variety of this affection. "It is now ten years," says he, "since I became acquainted with this peculiar form of hydrocele; and there are sufficient reasons for believing that I first discovered this variety, because of my peculiar mode of treating this disease, necessarily leading me to it, my practice being different from that which is universally pursued in Europe and the United States." Whether these claims, advanced by our distinguished *confrere*, are well-founded, might form an interesting subject of inquiry, which I have not time to pursue upon this occasion. I shall content myself with remarking that this variety of hydrocele was unquestionably described long ago, as distinct mention of it is made by Warner, Pott, Sabatier, Benjamin Bell, and other authors; and as for the "peculiar" treatment of hydrocele, that by incision, so far from being novel, it is well known that it was employed in the time of Celsus, and subsequently in the time of Guy De Chauliac.

In connection with this paper may be mentioned a short communication by Dr. E. L. Dudley, in Dr. Lawson's *Western Lancet*, for February, 1846, entitled a "Case of Sloughing of the Scrotum produced by injection to cure a Hydrocele." The patient was treated by Professor B. W. Dudley, but the operation was performed by another practitioner. The nature of the injection is not stated, except that it is said to have been stimulating. The testicle was completely denuded, and but a small piece of the scrotum on the affected side remained. The parts were dressed with the bandage, and in six or eight weeks, were entirely cicatrized. The case is given as a warning against the practice of injection, so universal among surgeons, and is made the occasion to enforce the advantages of the operation by incision. The paper, which is exceedingly concise, closes by stating that Professor Dudley has cured many cases of symptomatic hydrocele without any operation, simply by restoring the general health and vigor of his patients.

I am not aware that any operation for the radical cure of *Vari-*

coccele has been performed by any one in the State, except myself. My mode of treatment, founded upon nearly a dozen cases, is described in a short paper in the American Journal of the Medical Sciences, for October, 1848. It consists in exposing the enlarged viens by a vertical incision, scarcely an inch in length, along the anterior part of the scrotum, in carefully separating these vessels from the accompanying duct, artery, and nerves, and in firmly constricting them over a short stout sewing needle with a strong ligature, carried round the instrument in the form of the figure 8. The cutaneous wound is carefully closed with a twisted suture and collodion. At the end of thirty-six hours, the needle is withdrawn and the constricted vessels divided.

The advantages of this operation are,

First—its perfect simplicity and the facility with which it may be executed. Secondly—its freedom from pain and hemorrhage. Thirdly—the certainty with which we may avoid injury to the spermatic duct, artery and nerves. Fourthly—the little inconvenience and suffering which the patient experiences after its performance; and, Fifthly—the rapidity and certainty of the cure.

These considerations ought to be sufficient to recommend this method to the favorable regard of practitioners. Most of the operations described in the books are complicated, severe, and dangerous.

Excision of the *testis* for malignant and other affections has been repeatedly executed by our surgeons, in most cases without any ulterior advantage, the patient dying sooner or later from a return of the malady. An interesting exception to this rule is an instance which occurred in the practice of Dr. Flint, of this city, and a brief account of which is contained in the third volume of the Transactions of the American Medical Association. The disease was encephaloid, under which the patient, a married man with several children, had been suffering for several months. The spermatic cord was sound. The operation was performed on the 16th of March, 1840, and when the case was reported in April, 1850, the man was quite well.

A very novel case, justifying, in my opinion, excision of the testes, came under my observation in 1849. So far as my information extends, there is no account of any operation for a similar object upon record. The patient, at the time I first saw her—she had always been regarded as a girl, and had been so pronounced by the accoucheur—was three years of age, having been born on the 10th of July, 1846. At the age of two, she began to evince the feelings and disposition of a boy; she rejected dolls and similar articles of amusement, and became fond of boyish sports. She was well-grown, perfectly healthy, and quite fleshy; her hair was dark and long, the eyes black, and the expression very agreeable. Upon making a careful examination, I found the external genitals in the following very singular condition. There was neither a penis nor a vagina; but instead of the former there was a small clitoris, and instead of the latter a cul-de-sac, covered with mucous membrane. The urethra occupied the usual situation; the nymphæ were unnaturally small; but the labia were well developed, and contained each a testis, quite as large, consistent, and well shaped as they ever are in boys at this age.

It being apparent from the facts of the case that it was one of monstrosity of the genital organs, usually denominated hermaphroditism, the question at once occurred whether anything ought to be done to deprive the poor child of that part of the genital apparatus, which, if permitted to remain until the age of puberty, would be sure to be followed by sexual desire, and which might thus conduce to the formation of an unfortunate matrimonial connection. Such an alliance, it was evident, would eventuate only in chagrin, disappointment, and, probably, in disgrace.—Certainly no impregnation could ever occur, and even copulation could be performed but imperfectly. I gave the subject all the consideration that I was able to bestow upon it; I felt the responsibility of my position; a new question, involving the happiness of my little patient and the deepest interests of her parents, was presented to me. I appealed to the records of my profession, but in vain, for a precedent. Under the circumstances, I sought the advice of a medical friend, Professor Miller, in whose wisdom and integrity I had unwavering confidence; he saw the child, and examined her; he viewed the case, as I had done previously,

in all its aspects, physiological, legal and surgical, and his conclusion was that excision of the testes would not only be justifiable, but highly proper; that it would be an act of kindness and humanity to the poor child to deprive it of an appendage of so useless a nature, one which might ultimately lead to the ruin of her happiness. The parents were already solicitous for an operation, and having imparted to them our decision, I no longer hesitated in regard to the course I ought to pursue.

I performed the operation of castration on the 20th of July, 1849, aided by my pupils, Dr. D. D. Thomson, of this city, Dr. Greenbury Henry, of Burlington, Iowa, and Dr. William H. Cobb, of Cincinnati. The little patient being put under the influence of chloroform, I made a perpendicular incision into each labium down to the testis, which was then carefully separated from the surrounding parts, and detached by dividing the lower part of the spermatic cord. The arteries of the cord being secured with ligatures, the edges of the wound were brought together with twisted sutures, and the child put to bed. Hardly any blood was lost during the operation. About two hours after, the left labium became greatly distended and discolored; and, upon removing the sutures, the source of the mischief was found to be a small artery, which was immediately drawn out and tied. No unpleasant symptoms of any kind ensued after this, and in a week the little patient was able to be up, being quite well and happy. The testes were carefully examined after removal, and were found to be perfectly formed in every respect. The spermatic cords were natural.

I have seen this child repeatedly since the operation, as her parents live only a few squares from my office, and have watched her mental and physical developments. Her parents, who are persons of observation and intelligence, assure me that her disposition and habits are those of a girl; that she takes great delight in sewing and house-work, and that she no longer indulges in riding upon sticks and other boyish exercises. Her person is well developed, and her mind uncommonly active for a child of her years.

Self-Castration.

The following interesting case of self-castration has been communicated to me, through Dr. Frazee, of this city, by Dr. Samuel R. Sharpe, of Maysville.

W. O. N., aged twenty years, of a lymphatic temperament, light complexion, six feet high, and weighing one hundred and seventy-five pounds, a teamster and drover by occupation, came to Maysville in the autumn of 1849, having emaseculated himself only the day previous. Calm, clear and collected upon every subject, except that of his sexual organs, which he said had caused him more trouble than all the rest of his system put together, he viewed the act of mutilation in all its bearings and aspects with the utmost indifference, declaring that it was far better to part with the offending members than to be a slave to his passions. Looking upon the matter in this philosophical light, he had not hesitated to perform the operation, and now that it was over both his feelings and his conscience fully approved the act. He had no regrets, and he was satisfied that his future would be far more happy than his past life. This feeling of self-approbation continued for more than a year; but of late his conduct has been a source of deep chagrin and mortification to him.

The operation was performed in the woods, by himself, with a razor, at least half a mile from any dwelling, about five o'clock in the afternoon. There was but little external hemorrhage; but the blood collected in the scrotum, distending it to the size of a cocoa-nut. To guard against bleeding, he scraped the spermatic vessels, as he had often scraped those of the pig; the first testicle he removed, he said, in a very bungling manner, as his incisions were all too light; but the other was taken away very quickly and neatly. Hoisting his umbrella, he coiled himself up under it, and in this condition remained until the next morning, passing a calm and quiet night, not even thinking of the women. It is worthy of remark that this man labored under gonorrhœa at the time of the operation, and that the removal of his testes completely cured this disease without the aid of local or constitutional treatment. The reporter of the case facetiously asks, what do

you think of such a remedy for clap? Do you think it would become popular?

The treatment of the case, after it fell into the hands of Dr. Sharpe, was very simple. Poultices of cinchona and charcoal were used until the coagula were digested off, when they were replaced with cloths, wet with warm water. A mild vegetable tonic was administered, and a nourishing diet enjoined. The patient left Maysville in about a month. Dr. Sharpe states that he occasionally sees this man, and that he can observe a sensible change in his hair and beard, both becoming thinner and softer. His voice is unaltered, and there is no increase of flesh or fat. His industry and power of endurance are about the same as before the operation. He still retains some propensity for women, and declares that he has indulged in sexual intercourse, with feelings of a pleasurable kind.

Priapism.

Priapism, of a protracted and obstinate character, is occasionally met with, and well deserves, on account of the suffering which so generally attends it, the serious consideration of the practitioner. Dr. James Moore, of Shelbyville, gives a case in a married man, aged forty years, in which this affection continued, with hardly any interruption, for twenty-six days. The patient was laboring under dyspepsy and hepatic derangement at the time of the occurrence of the accident, which ensued immediately after sexual intercourse. The virile organ was in a state of complete erection, highly phlogosed, and exquisitely painful; considerable febrile disturbance was present, the bowels were costive, micturition was performed with great difficulty, and the patient was wholly deprived of sleep. The most active treatment, both local and general, was employed, as copious venesection, scarification, and cold medicated lotions, blisters to the inside of the thighs, and injections of antimony into the rectum, without any material benefit, until the twenty-third day, when bladders of cold water were resorted to, and kept constantly applied to the affected member. About the end of this time, manifest relaxation took place, and, in about twenty-four hours

more, it was complete. It was found necessary, during the whole treatment, to give cathartics and enemata largely, as more relief was obtained from them than from any other remedy, save the one just mentioned.

For the particulars of a similar case, occurring in a stout robust mechanic, thirty-three years of age, and continuing with great intensity for nearly two weeks,* the Society is referred to the second volume of the Western Medical Gazette, published at Cincinnati, in 1835. In this case, which I visited several times in consultation, and which I reported in the periodical just mentioned, the prominent symptoms were, a painfully tense and rigid state of the member, pain in the perinæum and neck of the bladder, infiltration of the subcutaneous cellular tissue of the penis, and obstinate retention of urine, with little or no constitutional excitement. The priapism supervened upon sexual intercourse, after exposure to a heavy shower of rain. Several months elapsed before the organ entirely regained its normal condition.

Sympathy between the Genital Organs and Cerebellum.

The sympathy existing between these organs has long been a subject of remark with physiologists and pathologists, and is often strikingly displayed after injuries upon the back of the skull, wounds of the cerebellum, and apoplectic effusions. Many examples, illustrative of this connection, are contained in the writings of physicians, as well as scattered through our periodical literature. The history of Kentucky surgery furnishes at least two cases of this kind, one in the practice of Dr. W. H. Donne, of this city, and the other in that of Dr. Asbury Evans, of Covington.

Dr. Donne's case was occasioned by a gun-shot wound.* The patient, a stout, athletic laborer, aged twenty-eight, received an injury from a rifle-ball, at the postero-inferior angle of the parietal bone, a few lines from the lambdoidal suture; the ball passing in a direction laterally downwards and backwards through the cerebellum, and lodging in the interior of the skull. Reaction, which was not fully established until the third day, was

* Western Medical Gazette, 2, 295. Cincinnati, 1834.

soon followed by cerebral inflammation, and by the escape from the wound of a large quantity of cerebral matter. Priapism supervened on the evening of the fifth day after the injury, and continued, without the slightest interruption, until a few moments before death, at the end of the ninth day. His language, for a time, was very obscene, and his sexual propensities were so great that his female attendant was obliged to quit his apartment.

Dr. Evans's case occurred in a youth of eighteen, in consequence of a blow upon the upper part of the head by the handle of a windlass. Death ensued in eleven hours after the accident, preceded by priapism and symptoms of cerebral compression. The patient lay in a state of insensibility for upwards of two hours, and was trephined without any relief. A post mortem examination disclosed extensive fracture of the frontal, parietal and ethmoid bones, with laceration of the anterior lobe of the left hemisphere of the brain, and a copious effusion of blood, both here and upon the upper surface of the cerebellum, as well as around the Varolian bridge and the oblong portion of the spinal cord. Dr. Evans accompanies the recital of his case with some very judicious reflections, which, I regret, the limits of my report prevent me from noticing.*

Syphilitic Diseases.

In Lawson's Western Lancet, for July, 1845, is a paper "On some Diseases resembling Syphilis," by Dr. E. L. Dudley, in which this gentleman calls the attention of the profession to the importance of a correct diagnosis between simple non-venereal and true venereal ulcers, to the avoidance of harsh local remedies, and to strict treatment of the constitution. He adduces several cases, from his own practice and from that of his friends, in corroboration of his views; and the article is characterized, throughout, by good sense and discrimination. He speaks in terms of high commendation of the efficacy of emetics in the treatment of the non-syphilitic sore, and of their value in preparing the system of the syphilitic patient for the use of mercury.

* Lawson's Western Lancet and Hospital Reporter, October, 1851, p. 625.

"It is just as important," he observes, "that the healthy train of associate actions should be established in a patient about to undergo a course of mercurial medicine, as that a patient about to submit to a dangerous operation should be in good health."

Of the truth of the above remark, no one, accustomed to treat syphilitic affections, can entertain a doubt. My own experience, long ago, convinced me that there is not an ulcer, no matter how simple or how severe, whether benign or malignant, syphilitic or non-syphilitic, in any part of the body, that is not vastly benefited or improved by due attention to the constitution; and, on the other, often immensely aggravated by the neglect of this precaution and by harsh topical applications. The connection between local and constitutional affections, or, more properly speaking, the influence exerted by the constitution upon the progress and character of local diseases, cannot be too often brought under the notice of the surgeon, or too forcibly enjoined in our writings and prelections. To regulate the diet and bowels, to correct and modify the secretions of the more important organs, to calm the general system, and to improve the general health, is to deprive any syphilitic ulcer, whether primary, secondary, or tertiary, of half its power, and to place it in the best possible condition for speedy restoration. Were this rule more frequently carried out in practice, we should see infinitely less suffering and loss of life from the use, or, rather, abuse, of mercury and other severe and unnecessary remedies.

B.—AFFECTIONS OF THE GENITAL ORGANS IN THE FEMALE.

Occlusion of the Mouth of the Uterus.

The orifice of the womb is liable, from various causes, to occlusion, followed, generally, especially in the adult, by retention of the menstrual fluid. The following cases are illustrative of the nature and treatment of the affection.

The first occurred in the practice of Professor Bush, of Lexington, and a brief account of it is to be found in the *Transylvania Medical Journal*, for November, 1851. The patient, a negress, had experienced severe pelvic pains for several months, and had used the ordinary remedies for exciting the menstrual

function. Her suffering gradually increased; and, upon examining her, the womb was found to be enlarged so much as to extend above the pubes, being fully as capacious as in the fourth month of gestation. The vagina was not more than an inch in length, and the orifice of the uterus could not be detected. The hymen was absent, and the parts had evidently been employed in the way designed by nature. The finger, inserted into the rectum and vagina, readily discovered a fluctuating tumor, occupying the concavity of the sacrum.

Dr. Bush passed a long trocar through the septum, and then with a bistoury made a crucial incision large enough to admit the index finger. A gush of thick semi-fluid substance immediately occurred, continuing for several minutes, and followed by the subsidence of the pelvic tumor. The patient recovered from the operation without accident, and several years after became pregnant, but could not be delivered without surgical interference, on account of the closure of the orifice of the uterus. Her labor had been in progress for about twelve hours, and the head of the child had descended nearly as low down as the vulva, when it became necessary to make an incision several inches in length, extending from a small orifice, left by the previous operation, forwards through what was supposed to be the mouth of the uterus. The opening was subsequently enlarged, and soon afterwards the child was expelled, dead, and imperfectly developed.

The subjoined case occurred in my own practice; the patient promptly recovered, and is still living. A widow lady, aged forty-nine, the mother of a number of children, and of rather delicate constitution, having a falling of the womb, was induced to wear a pessary, which occasioned excessive pain, and finally so much inflammation as to render it necessary to withhold it from the vagina. At the next menstrual period it was discovered that, although the ordinary symptoms were present, there was none of the proper discharge. Things went on in this manner for several months, with a gradual increase of the local distress, and the formation of a well marked pelvic tumor. The pains became more and more frequent and severe, and at length assumed a neuralgic type, recurring every afternoon, lasting a few hours, and then passing off, very much like the paroxysms of an

ague, only that they were not attended by chills and perspiration. The tumor augmented in volume, and at the end of a year it was as large as the womb in the seventh month of gestation. It was tender on pressure, movable, elastic, and fluctuating, both when felt through the abdomen and vagina, in the latter of which it formed a tense semi-globular projection. The general health was somewhat impaired.

In 1842, the patient came to town, and placed herself under the care of my colleague, Prof. Miller and myself. An operation being agreed upon, a puncture was made into what was supposed to be the original orifice of the uterus, giving vent to upwards of half a gallon of thick, grumous, dark-colored matter, evidently retained menstrual secretion, in an inspissated and highly altered condition. Immediate relief followed the operation. The neuralgic pains never returned, but the lady menstruated for some time afterwards, occasionally rather profusely, and suffering more than usual in her back and pelvis. Her health became gradually re-established, and remains good to this day.

Very recently another instance of a similar nature came under my observation, and was fortunately relieved in the same manner.

Stricture of the Vagina.

A case of this affection, treated successfully with the elm bougie, has been reported to me by Dr. William A. McDowell, formerly of this city.

In October, 1839, a lady, aged thirty-seven years, much emaciated, and of chlorotic appearance, consulted Dr. McDowell and Dr. Powell, making the following statement about her case.—Three years previously she had been delivered by a drunken accoucheur, who, to suppress flooding, had recourse to his pocket handkerchief for a tampon. All went on well, with the exception of a gradually increasing uneasiness in the vaginal region, until the sixth day, when the suffering became so severe that her physician was called. He examined the part, and to his surprise found his long lost handkerchief. The process of extraction was agonizing in the extreme; and was succeeded by a protracted

attack of fever. On her recovery, she detected the obliteration of the vagina; she had not menstruated since, but was troubled with an incessant oozing of reddish fluid.

An examination discovered a mere cul-de-sac at the mouth of the vagina, not exceeding an inch in depth, and walled round with strong sound tissue. Into this a conical piece of seasoned elm bark, five inches long, and of the thickness of a crow-quill, after having been immersed for fifteen minutes in tepid water, was introduced, and gently passed up nearly its whole length; after which it was secured in its place by a T bandage. In twenty-four hours this bougie had expanded to the size of a large goose-quill; another and another, each successive one larger than the previous, was inserted day after day, until the canal finally received one of an inch in diameter, composed of different layers of the bark, notched and tied together, and rounded off above. This was deemed sufficiently large, and was retained daily, for several hours, until its presence ceased to irritate or annoy. In this manner the patient was cured without any ocular inspection whatever; and eleven months afterwards she gave birth to a son.

VIII.—AFFECTIONS OF THE ARTERIES.

Aneurism.

One of the most remarkable circumstances, and one for which no satisfactory explanation can be offered, is the infrequency of spontaneous aneurism in the inhabitants of the South-west. In a practice in Ohio and Kentucky of nineteen years, in which I have witnessed almost every surgical disease to which the human body is liable, it has rarely occurred to me to meet with an example of this affection. My experience, in this respect, perfectly coincides with that of my professional brethren. Professors Dudley and Bush, of Lexington, have rarely met with an instance of this disease. In a letter recently received from the latter of these gentlemen, he remarks, "Dr Dudley says his experience upon the subject of spontaneous aneurism corresponds with yours." Dr. T. G. Richardson, the Demonstrator of Anatomy

in the University of Louisville, has dissected several hundred bodies without meeting with hardly a solitary example of this affection; and the testimony of Dr. Bayless, who formerly occupied the same position, is precisely to the same effect. To what this extraordinary immunity is ascribable, we have no data by which to determine. Our population is a mixed and laborious one, made up from all parts of the civilized world, and pursuing all sorts of occupations, from the most delicate and refined to the most severe and rigorous; and yet a case of spontaneous aneurism, in any class of our citizens, is absolutely an anomaly. Leaving to others the task of ascertaining, if possible, the cause of this exemption, so remarkable and so singular, I shall proceed to point out to you such facts and observations as have a tendency to illustrate the history of this branch of Kentucky surgery.

One of the most extraordinary cases of aneurism of which the records of science make mention, occurred in 1841, in the practice of Professor Dudley, of Lexington.* The patient was a blacksmith, twenty-five years old, affected with a remarkable protrusion of the right eye, attended with great pulsation of the part, noise in the head, wide separation of the sutures of the cranial bones of the corresponding side, and loss of function of the right eye and ear. He had occasionally suffered during the last five or six years with intense pain in the head, for which much had been done, both locally and constitutionally, without any material benefit.

The patient having been subjected, for a few weeks, with great amelioration of his suffering, to a rigid diet, purgatives, and alteratives, Dr. Dudley determined to secure the carotid artery, as the only chance of relief. The moment the ligature was tied, all pulsation in the part ceased, the corresponding side of the head became perfectly quiet, and the noise in the head, which had been so long and so troublesome an attendant, disappeared.—Some fever and biliary derangement ensued four days after the operation; but these soon yielded to mercurial cathartics and “broken doses” of tartrate of antimony and potash. By the

* Transactions of the American Medical Association, vol. 3, p. 342. The case is reported at length in the Quarterly Summary of the Transactions of the College of Physicians of Philadelphia, for Aug., Sept., and Oct., 1842.

end of the second week, the tumor had receded so far that the disunited portions of the cranial bones had recovered their natural position, and the eye and ear their functions. In less than a month, the man returned to his residence at St. Louis, to resume his occupation as a blacksmith.

Dr. Hall, of St. Louis, who knows Dr. Dudley's patient well, informed me, about six weeks ago, that there has been no return of his disease, and that the general health of the man is excellent. For about eighteen months after the operation, he was feeble, and unable to attend to much business. Since then he has been regularly at work as an industrious blacksmith.

Carotid Artery.

In Drake's Western Medical and Physical Journal, for 1826, Dr. Henry Miller, of this city, has recorded a case in which he tied the *carotid artery*, on account of injury inflicted upon the neck by a female in an attempt at self-destruction. There were not less than five incisions on the right side, dividing the body of the sterno-cleido-mastoid muscle, the internal jugular vein, and the outer coat of the carotid artery. The larynx was intact. The hemorrhage from the jugular vein was excessively profuse; but having ceased when her attendant arrived, he contented himself with the introduction of a few sutures and the application of a compress and roller. The accident happened on the 12th of September, 1825, and Dr. Miller did not see the case until the 23d. The hemorrhage had recurred with about as much loss as in the first instance, and was evidently of a venous character. As the wound had healed, except at a few small points, it was deemed best to trust again to compression. On the 9th of October, in consequence of an alarming repetition of the hemorrhage, which was now distinctly arterial, the wounded carotid artery was tied below its bifurcation with a single ligature, carried round the vessel with a common curved needle. For three days subsequent to the operation, which was rendered both tedious and difficult, on account of the previous division of the sterno-mastoid muscle, and the confused and matted condition of the parts, the woman lay in a state of insensibility, and fainted

whenever she was raised up in bed. She then began to recover; the wound healed rapidly; there was no further return of arterial hemorrhage; and in a few weeks she was entirely well.

Dr. E. L. Dudley, of Lexington, tied the primitive carotid on the 12th of August, 1851, in a man aged thirty, who, three weeks previously, had been stabbed in the neck with a knife. A copious hemorrhage followed the accident; and about ten days after, a pulsating swelling was observed at the site of the injury, which burst on several occasions, and the man very nearly lost his life by bleeding. The carotid artery was secured just above the angle formed by the omo-hyoid and sterno-mastoid muscles. Some hours after the operation, upon removing the compress from the original wound, a copious flow of blood, supposed to proceed from an opening in the internal jugular vein, took place, but this was easily checked, and did not recur until the 17th, when it was so great as to induce syncope twice. The dressings were now more securely applied, and, on the 22d, when they were taken off, all danger of hemorrhage was found to have passed; the wound suppurating kindly, while that made in the operation had nearly healed.

On the 19th of August, that is, seven days after the operation, tetanic symptoms supervened, and gradually increased in severity until the morning of the 31st, when the man expired. No active treatment was employed after the full development of the spasmodic affection. A large blister was applied to the nape of the neck on the 28th; but, although it produced thorough vesication in a few hours, no benefit followed. The ligature came away on the sixteenth day after the operation.

Subclavian Artery.

To Professor Benjamin W. Dudley, of Lexington, is due the honor of having been the first, in Kentucky, to perform the operation for securing the subclavian artery. I was not aware, until recently, of the existence of this fact, when I accidentally met with it in reading this gentleman's article "On the use of the Bandage in the Treatment of Contusions, Lacerations, Effusions, &c.," in the second volume of the *Transylvania Journal of Med-*

icine and the Associate Sciences. I make this statement for the purpose of accounting for the omission of this case in my paper upon axillary aneurism, published in the *Western Journal of Medicine and Surgery*, for June, 1841.

Dr. Dudley's case occurred in the autumn of 1825, in an old gentleman of sixty-five. The disease was axillary aneurism, and the tumor, which pulsated upon all points of its surface, was "larger than a quart pitcher." As a preliminary step, the parts were placed in the most favorable situation for exposing the subclavian, by putting the patient in the semi-recumbent posture, inclining the head to the sound side, and depressing the shoulder. Several vessels, some of magnitude, were laid bare, and held out of the way, while the artery was brought fully into view, and ligated without the loss of a table spoonful of blood. All pulsation in the tumor, as well as at the wrist, immediately ceased, although there was no loss of temperature; and, on the twenty-first day after the operation, the patient went home in good health. It is to be regretted that the details of this case are so meagre, as they deprive it of much of its interest. *

The second operation upon the subclavian artery was performed in October, 1832, at the Louisville Marine Hospital, by Dr. Alban G. Smith, now Dr. Alban Goldsmith, of New York, for the relief of axillary aneurism in a Spaniard, named Lewis Vergue, thirty years of age. The patient had been struck, upwards of a month previously, with a dirk-knife, which, entering near the top of the left shoulder, passed inwards and outwards so as to open the axillary artery. The vessel bled profusely, both at the moment, and several times subsequently, but the hemorrhage ceased entirely in a few days, and shortly afterwards the external wound healed. When the case was first seen by Dr. Smith, the tumor was five inches across its base, pulsated strongly, and was situated just beneath the clavicle. The general health was much impaired; the patient was feeble, and obliged to keep his bed; he was unable to move his left arm, and sudden motion of the body produced a feeling of faintness.

Having spent from two to three weeks in unavailing efforts to

* *Transylvania Journal of Medicine and the Associate Sciences*, vol. 2, p. 362. Lexington, 1829.

reduce the tumor by low diet, rest in the recumbent posture, and steady pressure upon the part, Dr. Smith determined to tie the subclavian artery. With a bistoury two incisions were made, one, three inches in length, along the upper border of the clavicle, and the other, two inches in length, parallel with the external margin of the sterno-cleido-mastoid muscle. The fibres of the platysma-myoid muscle were next divided, when, taking the inferior edge of the omo-hyoid for his guide, he exposed the artery just as it emerges from between the scalene muscles, and secured it with three cords of silk, conveyed beneath it by a Parrish aneurismal needle. The tumor immediately ceased to pulsate, and decreased one-third in size. Hardly a gill of blood was lost in the operation. On the sixth day the pulse returned at the wrist, and on the eighth the ligature came away with the dressings. At the end of a fortnight the wound had healed, and the tumor had shrunk down to a little hard lump. On the eighteenth day, the patient left for New Orleans, and was rapidly regaining the use of his limb.*

The third operation in Kentucky, for ligating the subclavian artery, was performed by the Chairman of this Committee, in February, 1841, upon a colored man, thirty-six years of age, affected with axillary aneurism, from the recoil of the butt end of a yager. The tumor, situated beneath the right pectoral muscle, and extending from the clavicle down to the cartilage of the fourth rib, was of an irregular conical shape, and about the volume of a large fist, measuring fully four inches at its base in one direction, by three and a half in the other. Though pulsating strongly, it was tense, as well as inelastic, and the blood rushed into it with a peculiar wheezing noise. The clavicle was thrown above its natural level, the pectoral muscle much stretched, and the whole limb, from the top of the shoulder to the ends of the fingers, benumbed, painful, and nearly deprived of power. For the last four weeks, the local distress was so intense as to deprive the patient, in great degree, of appetite and sleep, and, as a necessary consequence, the general health was much impaired.

An operation being determined upon, as the only probable means of saving life, it was performed on the 18th of February,

* Western Medical Gazette, vol. 1, p. 320. Cincinnati, 1834.

before the Medical Class of the University of Louisville. The patient was placed upon a narrow table of moderate height, the head and chest were properly elevated with pillows, and the face was turned a little towards the sore side, while an assistant pulled gently at the wrist, so as to depress as much as possible the affected shoulder. The integuments over the clavicle being next stretched upon the chest, I made my first incision along the centre of that bone, beginning near the sternal origin of the mastoid muscle, and passing out towards the acromion process of the scapula for about three inches and a half; thus dividing, at one stroke, the skin, cellular substance, and platysma-myoid muscle. The parts being now allowed to retract, left the lower margin of the cut parallel, and on a level with the superior border of the clavicle. A second incision, about two inches in length, was carried along the posterior edge of the mastoid muscle, at a right angle with the preceding. The triangular flap thus formed was then dissected up and held out of the way, care being taken not to interfere with the external jugular vein, or any of the smaller arteries of the neck. The cervical aponeurosis was now detached from the clavicle by cautious strokes of the handle of the scalpel, which laid bare the brachial plexus of nerves and the omo-hyoid muscle. At this stage of the operation a small vein, a branch of the subclavian, was laid open, and, although it bled very little, it was immediately secured with a temporary ligature. Taking the omo-hyoid for my guide, I divided the loose cellular substance in the triangular space, bounded above by the muscle just mentioned, by the clavicle below, and by the anterior scalene muscle internally, and thus approached the artery as it passed over the first rib. The vessel here lay at some distance from the inferior branch of the brachial plexus of nerves, rather deeply behind the collar-bone; and with a common aneurism-needle, armed with a double ligature of saddler's silk, no difficulty was experienced in securing it, the instrument being passed from before backwards and from below upwards. It was then drawn very firmly with the fingers, and tied it with a double knot within a few lines of the anterior scalene muscle; as soon as this was done, all pulsation in the sac, as well as at the wrist, ceased. Not half an ounce of blood was lost during the operation, which lasted

twenty minutes. The edges of the wound being approximated by three sutures and adhesive strips, the patient was put in bed, and the limb, laid in an easy posture, wrapped in cotton wadding. In less than an hour, the temperature, which had been considerably depressed, was completely restored, the pain and numbness had much decreased, and the patient expressed himself more comfortable than he had been for a month.

Every thing went on well for upwards of a fortnight, at the end of which time the ligature came away, and the tumor had diminished fully one-half in volume. On the 13th of March he began to complain of being somewhat unwell, and early in the morning of the 16th, he was suddenly seized with intense pain in the chest, followed by excessive dyspnœa and great acceleration of the pulse, with an entire subsidence of the aneurismal swelling. Notwithstanding the employment of the most vigorous anti-phlogistic remedies, death took place on the evening of the 20th of March, a little upwards of thirty days from the time of the operation.

An examination, made thirty-six hours after death, disclosed the fact that the fatal termination had been owing to a rupture of the aneurismal sac, and to an escape of its contents into the thoracic cavity, followed by violent pleuritis, and a deposit of nearly three quarts of bloody-looking serum, intermixed with flakes of lymph and laminated clots. The subclavian artery, terminating abruptly at the outer margin of the scalene muscle, at the point of ligation, was closed by a mass of solid fibrin, about one-third of an inch in length, which adhered firmly to the lining membrane, and this afforded an effectual barrier to the passage of the blood. The opening of communication between the aneurismal sac and the thoracic cavity, was of an oval shape, and about an inch and a half in diameter; it was situated between the first and second ribs, nearly equi-distant between the sternum and the spine, and was evidently the result of ulcerative absorption, induced by the pressure of the tumor. Both ribs were divested of their periosteum immediately round the opening, and the serous membrane there had a shreddy, ragged appearance. The aneurismal sac, placed just below the clavicle, and of a conical figure, was about the volume of a medium sized

orange, and contained a few laminated clots, closely adherent to its inner surface. *

It will not be out of place here to state that the paper in which this case was published, is accompanied by an "Inquiry into the Nature and History of Axillary Aneurism," with an analysis of twenty-six cases in which the subclavian artery was tied for the cure of that affection.

In connection with these operations may be mentioned a case of traumatic aneurism in the left axilla, in which Dr. J. B. Flint,† of this city, attempted, in June, 1849, to tie the subclavian artery above the clavicle, but failed on account, as he remarks, of the abnormal position of the vessel. "The artery," to employ his own language, "was found an inch and a half from the outer margin of the anterior scalenus muscle, in a direction upward and inward. Only so much of it could be exposed as could be covered by the point of the finger." The parts were so matted together as to render all attempts to encircle the vessel fruitless, and the operation was therefore abandoned. In three weeks, the tumor had ceased to pulsate, and was greatly reduced in volume. Dr. Flint saw the patient the following September, when the cure was complete. Is it perfectly certain that the aneurism in this case was dependent upon lesion of the subclavian artery?

Brachial Artery.

In the treatment of aneurism, at the bend of the arm, caused by a wound of the brachial artery, Professor B. W. Dudley‡ speaks in terms of high commendation of steady, systematic compression with compresses and bandages. It would appear that he adopted this plan, with entire success, in a case of this kind in a youth, as early as the autumn of 1814. Isolated pressure, by means of linen pledgets, bits of wood, and pieces of sheet lead, bound firmly upon the tumor, had been previously employed, but were productive only of great pain and of an aggravation of the

* Western Journal of Medicine and Surgery, for June, 1841; also, Liston's Elements of Surgery, by Gross.

† Western Lancet, for November, 1849.

‡ Transylvania Journal of Medicine, for October, 1849.

disease. As the parents of the patient were averse to an operation, thick compresses were applied to the aneurism and to the brachial artery as high up as the axilla, and tied firmly down with a roller extending from the fingers to the shoulder. The dressings, which had the effect of moderating the circulation of the entire limb, and which were borne with little inconvenience, were obliged, in consequence of the shrinking of the muscles and of the gradual subsidence of the tumor, to be renewed every second, third, or fourth day. At the end of the third week, the pulsation in the aneurism was very languid, and in three weeks more it was no longer distinguishable. The cure was complete in two months.

From the beneficial effects in the case just mentioned, Dr. Dudley was induced to apply the same mode of treatment to all aneurismal affections, of an accessible character, of the arteries of the extremities, and for many years past his success has been of the most flattering description. He relates instances of traumatic aneurism of the brachial, ulnar and anterior tibial arteries, which were all cured in this manner, in from three to eight weeks. The treatment, however, is not to be conducted without due precautions, otherwise serious mischief may be caused, as is shown by one of Dr. Dudley's own cases, and which is too interesting and important to be omitted on this occasion.

A man having brachial aneurism, consequent upon a wound, was treated with the compress and bandage. On removing the third dressing, which had not been carried much above the swelling, an eschar was detached, followed by a gush of arterial blood from the sac. This unexpected result is ascribed by the narrator of the case to the high inflammatory excitement, both of the coats of the aneurismal tumor and of the artery, for some distance above the seat of the disease; "a condition entirely at variance," he remarks, "with what I have been taught, in our own country and abroad, as regards the weakened condition of the aneurismal artery." "Observations made upon all subsequent cases of aneurism have satisfied me that the disease consists in preternatural volume and power of contraction in the artery for some distance above, as well as at the seat of the sac, while the old unsuccessful operation performed upon the artery as it enters

the sac, grew out of inflammation being above that stage which is favorable to adhesion. In accordance with these views, no difficulty was experienced in effecting a cure in all cases coming under treatment, *where compression could be satisfactorily applied upon the sac, and also upon the artery above, so as to embrace all the inflamed portion of it.*"*

Professor Dudley, it will be noticed, here claims to have discovered, first, that he was the first to ascertain the diseased condition of the aneurismal sac and of the cardiac portion of the artery leading to it; and, secondly, that he was the first to adopt and advise systematic compression with the compress and roller in the cure of this affection. Without wishing to derogate any thing in the slightest degree from our distinguished countryman, as a discoverer, your Chairman deems it his duty to state, as a historical fact, that the former of these views has been known to physicians and pathologists almost from time immemorial, and that the practice of compression, so strenuously recommended by Dr. Dudley, is described, at length, by Guattani, in his treatise "*De Externis Aneurysmalibus*," published in Rome, in 1772.

I had occasion, in 1841, to tie the brachial artery at the bend of the arm, on account of a wound received in bleeding with a thumb-lancet, in a youth, of the name of Ragland, aged eighteen years, from Henry county. The accident, which had occurred about six weeks previously, was soon followed by great swelling and discoloration of the limb, which gradually extended downwards nearly to the middle of the fore-arm, and upwards as far as the axilla. The pain was excessive, the appetite much impaired, the sleep constantly interrupted, and the countenance blanched and expressive of the deepest anxiety. About the fourth week a large opening formed at the seat of the original orifice, from which upwards of a quart of thick grumous blood was discharged. He was brought to town on the 27th of December, and placed under the care of my friend, Dr. Drane, now of New Castle. At this time his health was frightfully deranged; his strength was much exhausted; he had not slept for several nights; and the whole limb, benumbed and excessively painful, was swollen from the wrist to the shoulder. The parts pitted

* Transylvania Journal of Medicine, for October, 1849.

under pressure; two small, foul-looking ulcers existed at the bend of the arm; the skin was highly discolored; and fluctuation could be distinctly felt all the way up from below the elbow to the insertion of the deltoid muscle.

With the assistance of Dr. Drane, an incision five inches in length, was made over the course of the brachial artery; and, after much difficulty, owing to the confused state of the parts, a ligature was placed above and below the orifice, which was at least six lines long. All the grumous blood, amounting to nearly a quart, was squeezed out, when the edges of the wound were brought together with adhesive strips and by a roller extending from the fingers to the shoulder. Very little sloughing took place; and, notwithstanding the exhausted condition of the patient at the time of the operation, a very speedy recovery was the consequence. *

Dr. Samuel B. Richardson, of this city, informs me that he has operated successfully, in one instance, for a similar affection. The aneurism was of the diffused variety, having been caused by a large puncture of the humeral artery, five weeks previously. Three ligatures were applied, one to the humeral artery, one to the radial, and one to the ulnar. The aneurismal tumor contained about a pound of coagulated blood and fibrin, and had been, almost daily, the seat of profuse hemorrhage ever since the occurrence of the accident. The patient had a good recovery.

In 1850, I operated upon a man of the name of Moore, aged forty-four, from Mississippi, for a circumscribed aneurism at the bend of the arm, caused by bleeding himself with a thumb-lancet. The tumor, of an ovoidal shape, and about the volume of a goose's egg, was filled with coagulated blood, and caused immense pain by its pressure upon the nerves. The operation was protracted on account of the difficulty of finding the brachial artery, which, however, together with the radial, was at length secured, and the tumor removed. Severe erysipelas of the limb ensued; but under the judicious treatment of Dr. Coleseott, in whose charge the patient was left, perfect recovery took place.

* Liston's Elements of Surgery, by Gross.

Aneurism of the Ulnar Artery.

In August, 1842, I had occasion to tie this vessel, on account of an aneurism supervening upon a wound of the fore-arm, inflicted by a scythe. The patient was Mr. Shelby, a very respectable farmer, aged twenty-seven, from Charlestown, Indiana. The wound, received six weeks previously, was situated three inches above the wrist, and extended, nearly in a horizontal direction, across the anterior surface of the limb, involving the superficial muscles and the ulnar artery. The hemorrhage was so profuse, at the time of the accident, as to induce syncope. The wound was dressed, several hours after, with adhesive strips and a bandage. Every thing went on well until about the tenth day, when the parts gave way, and a good deal of hemorrhage ensued. A tumor, rather of a diffused character, gradually formed, imparting a faint feeling of pulsation, and attended with a good deal of pain and numbness of the limb, with an inability to incline the hand and wrist towards the radial side. The fingers were stiff, and in a state of permanent semi-flexion.

An incision, three inches in length, being made perpendicularly over the most prominent portion of the tumor, the artery was laid bare at the site of the original injury, and tied, both above and below the wounded part. On the second day a smart attack of erysipelas took place, and continued for nearly a week. The incision soon healed, and the pain and numbness of the limb gradually subsided, followed by a better use of the hand and fingers. The ligatures came away on the fourteenth day.

In the *Western Lancet*, for February, 1846, is a short paper on "Hemorrhage caused by inefficient Compression," by Dr. E. L. Dudley, of Lexington; which, as it refers to a subject intimately connected with the one just discussed, may be briefly noticed here. It is illustrated by an account of two operations, one for the removal of the testicle, and the other, for extirpation of the mammary gland; and, although it contains nothing novel, it may not be amiss to give a brief analysis of it. It should be premised that both the cases occurred in the practice of Professor B. W. Dudley.

The first case was that of a negro man, aged forty, and invol-

ved the left testis. The operation was attended with more than ordinary violence on account of the indurated condition of the surrounding tissues; but the immediate hemorrhage was inconsiderable, and all the bleeding vessels were secured by ligatures. A tight pledget of cotton cloth, secured by a bandage, constituted the dressings. Two hours afterwards, the scrotum was found enormously distended with blood, which was issuing, at the same time, copiously from the upper portion of the wound. The dressings and cloths being removed, it was ascertained that the bleeding proceeded from the whole inner surface of the sac. The patient, by this time, was excessively feeble. Notwithstanding the insertion of a large pledget into the upper portion of the cavity, in order to keep the incision open, it was necessary, on the succeeding day, on account of the recurrence of the hemorrhage, to remove the dressings a second time. A large clot had formed in the lower part of the scrotum, and it was evident that the blood proceeded directly from the surface in contact with the coagulum. The wound was now thoroughly cleansed, and stretched as widely apart as possible. The bleeding ceased instantly, and no dressing whatever was applied afterwards until all danger of hemorrhage was passed.

In the second case, which involved the removal of the mammary gland, the wound was dressed with adhesive strips and a pledget to receive the blood. In a few hours there was a gush of blood from the part, to the great alarm of the patient. The edges of the wound were drawn so completely together as to prevent the exit of the blood, which oozed from the minute vessels. The bleeding ceased the moment the dressings were removed and the clots pressed out of the cavity formed by its accumulation. "The only precaution afterwards observed, was to preserve an outlet through the wound."

I do not feel disposed to comment upon these cases, as it respects the manner in which the wounds were dressed after the operation. I will merely remark, that, in my own practice, I have never, except in a solitary instance, been obliged to remove the dressings after excision of the mammary gland; for the reason, as I conceive, that I always carefully approximate the sides of the wound with a large, thick compress, firmly supported by a

bandage. Where this precaution is used, and all the vessels have been previously secured, it is hardly possible that there should be any secondary hemorrhage. After excision of the testis, my invariable rule is simply to approximate the edges of the wound with a few stitches, to support the scrotum upon a handkerchief secured to a body-bandage, and to keep the parts constantly wet with cold water, or some refrigerating lotion, applied by means of a small bladder.

Hemorrhage from the Arteries of the Thigh.

Our late President, Dr. W. L. Sutton, of Georgetown, has communicated to me a case of this kind, occurring on the 3d of November, 1828, in a man who was stabbed on the outside of the left thigh, about the junction of the upper with the middle third. A physician, who was present at the time, thrust his finger into the wound and felt a decided current of blood. A cord being tied round the limb, the bleeding was arrested, and did not return when the constriction was removed. On the 16th, the hemorrhage having recurred several times, it was resolved to secure the injured vessel. A probe was inserted two inches and a half without causing any bleeding. An incision, about five inches in length, and embracing the original wound, was made. It was now ascertained that the knife had passed behind the thigh-bone, and about an inch beyond it. Rubbing the wound would not make the vessel bleed. Satisfied that the injured artery was on the inside of the limb, it was proposed to tie the profunda, near its origin; but as this remedy was considered disproportionate to the disease, the attendant concluded to trust to strict quietude, and constant, but moderate, pressure upon the femoral artery.

On the 22d, the hemorrhage having recurred repeatedly, and of late, more frequently, it was deemed advisable to secure the profunda. An incision being made down to the femoral, at the root of the profunda, a ligature was about to be applied, when it was recollected that the circumflex is some times given off separately. Upon making the wound bleed, and pressing the artery, it was found that the hemorrhage could not be arrested. A little deeper and lower down a vessel was seen, pressure upon which

arrested the flow of blood. This was tied with two ligatures, the first about an inch from the femoral, and the vessel divided between them.

On the 29th, there was free bleeding from the last incision, which, however, was soon stopped by pressure on the pubes. The parts being torn asunder, no open vessel could be found, and the wound was, therefore, stuffed with lint and the patient put in bed. On the 2d of December, in the morning, there was slight hemorrhage, which was also easily arrested by pressure. The next day, at 1 o'clock, the bleeding was copious, and was stopped in the same manner. The femoral artery was now tied about an inch above the profunda. Shortly afterwards the patient complained of excruciating pain in the limb and bowels, the former of which, he said, felt as if it weighed a thousand pounds, and was as large as a mountain. There was some delirium, and the pulse was 120. Laudanum was given internally, and warm flannel applied to the limb. For some time sensation was entirely destroyed; but it gradually re-appeared in the upper part of the thigh, and ultimately extended down the leg and foot. The thermometer never indicated any loss of temperature. An eschar formed on the heel, followed by an exfoliation from the calcaneum; the pulse came down slowly; and the original wound gradually cicatrized.

Dr. Sutton thinks that well adjusted pressure with the bandage would have saved the patient a vast amount of suffering and his attendants a corresponding amount of care and perplexity. He is not satisfied as to the source of the secondary hemorrhage; whether it was in the circumflex, and caused by its having been tied too close to the femoral, or by the ligature having been drawn too firmly; or whether it was in the profunda, and occasioned by its having been denuded, preparatory to being ligated.

*Treatment of Spontaneous Aneurism by Rest and
Absolute Diet.*

Professor Bush, of Lexington, has communicated to me the particulars of a case of spontaneous aneurism of the abdominal aorta, in which marked relief of the symptoms seems to have

followed the observance of a most rigid diet. The patient, Mrs. Anderson, a mid-wife, aged sixty, resides in Madison county, Kentucky, and has led a very exposed and laborious life for many years. When Dr. Bush first saw her, about three months ago, the tumor, situated just below the stomach, was about the size of a pullet's egg, and pulsated most violently, emitting all the usual aneurismal sounds. The heart was involved in the trouble, laboring, and irregular in its actions. Believing that the case would be fatal, Dr. Bush merely advised quietude and absolute diet, barely enough of the lightest and least stimulating articles to support life. For a short time she grew worse, and her physician, Dr. Evans, informed Dr. Bush that a post mortem examination could be obtained when she died. Not long afterwards he learned that, under a rigid adherence to the treatment, the woman was rapidly improving, in fact, getting well, with a decided subsidence of all the local symptoms. "This," adds Dr. Bush, "is the whole of my experience in spontaneous aneurism, excepting one or two cases which I have seen in the hands of Dr. Dudley, treated in the same manner, but not of Kentucky."

The starving plan of treatment, first recommended by Valsalva, and so happily employed by Dr. Bush in the above instance, is worthy of the serious consideration of the surgeon in all cases of spontaneous aneurism, inaccessible to the ligature. When properly carried out, it may not only retard the fatal progress of the disease, but occasionally even effect a cure, especially in the milder and more recent forms of the affection. Valsalva's plan, as is well known, was to subject his patients to the most perfect rest in the horizontal posture, and to diminish the quantity of food gradually, till only half a pint of soup was allowed in the morning, and a quarter of a pint in the evening, with a very small quantity of water, medicated with osteocolla, or mucilage of quinces.* This treatment was aided, particularly in robust subjects, by the repeated abstraction of blood. Professor Dudley asserts that he has cured some cases simply by restricted diet, without the use of the lancet; and a recent foreign journal mentions several instances of a similar kind relieved by Dr. Bellingham, of Dublin.

* Cooper's Surgical Dictionary, art. aneurism.

Burns and Scalds.

The subject of burns and scalds has not escaped the attention of the practitioners and writers of Kentucky. In 1829, Dr. Lloyd Warfield, of Paris, published, in the second volume of the *Transylvania Journal of Medicine and the Associate Sciences*, a long, and, in many respects, a very able Essay on Burns, which might be referred to, with great advantage, by every member of our Society. He divides lesions of this kind into two classes, according to their effects upon the tissues and the system at large. "The first is that," says he, "in which the vitality is injured, and both the part and general system retain, and manifest, an abundant power to re-act. The second is that in which the vitality, both in the part and the general system, is greatly exhausted, and of course but very little power of re-action remains."

After passing in review the two opposite, and apparently contradictory, modes of treatment laid down by systematic writers, he expresses his decided preference for warm emollient poultices, prepared of the starch of wheat-flour and of slippery elm. These articles, which he was in the habit of using alone, and the former of which he considered as superior to the latter, though he had also a very favorable opinion of this, he recommends to be spread pretty thick upon linen cloths, which are then to be applied directly to the affected part, the surface of the cataplasm being previously covered with linseed oil. The poultice, thus prepared, need not be renewed under twenty-four hours, and may be continued until the establishment of suppuration. Dr. Warfield asserts that it affords immediate ease, assuages the sense of heat, moderates inflammation, promotes suppuration and sloughing, and forms a soft nidus in which the granulations may repose with safety and comfort.

Dr. Warfield also speaks favorably of linseed oil and carded cotton, as applications in superficial burns, but regards them as inferior to warm emollient poultices, and as objectionable on the ground of their severity, their desiccating qualities, and the necessity of their frequent renewal.

In the second class of burns, the best remedies are, hot spirits, oil of turpentine, spirits of camphor, and other kindred articles.

The constitutional means upon which Dr. Warfield seems to rely are, in his first division, abstinence, cooling purgatives, blood-letting, diaphoretics, and diluents; and, in the second, wine, brandy, ether, and opium.

An account of "Four cases of Burns and Scalds, successfully treated with the acetate of morphine," by Dr. T. W. Major, of Paris, is contained in the tenth volume of Dr. Drake's *Western Journal of the Medical and Physical Sciences*. The dressing consisted of a plaster of basilicon, large enough to cover the whole of the affected surface, and sprinkled with from three to six grains of the salt in question, according to the age and suffering of the patient, and the extent of the lesion. The result, in every instance, was the prompt cessation of pain and restlessness, and the induction of tranquil and refreshing sleep. The application was renewed once a day, or once every forty-eight hours, and was soon followed by the formation of a new cuticle. The injury, in all these cases, was superficial, and it is worthy of remark, that no bad effect resulted from so liberal a use of morphine.

In Dr. Bell's *Bulletin of Medical Science*, for February, 1845, I published a paper on the use of carbonate of lead, in the form of white paint, in the treatment of burns and scalds. Since that period, the article has been employed, in numerous instances, both by myself and others, and the result has been to confirm fully the favorable opinion which I had expressed. The proper mode of applying the lead, is to mix it with linseed oil to the consistence of thick cream, or molasses, and to spread it upon the affected surface with a small brush, or camel's hair pencil, until it is completely concealed from view. The part is then covered with carded cotton, or, what is better, because less heating, a piece of old muslin, and supported with a moderately firm roller. If vesicles exist, they must be pierced with a needle, and the exuding fluid wiped away with a soft sponge, otherwise the paint will not adhere. In the milder forms of burns and scalds, one dressing generally suffices; but, when the deeper structures have suffered, a considerable number, applied at intervals of twenty-four hours, will be necessary to a cure. Whenever the dressing becomes saturated with secretions, the part is rendered painful and the system irritable. In mild cases, the paint and

epidermis form a sort of dry incrustation, which generally drops off in four or five days, leaving the subjacent surface entirely well, or of a slightly excoriated aspect.

It is not merely in the milder varieties of burns and scalds that this remedy is applicable; it may be beneficially employed whatever be the extent or depth of the lesion. When the skin is converted into an eschar, it matters not what is used; the contact of the atmosphere can do no harm, and the great indication, so far as the local treatment is concerned, is to promote the detachment of the slough, and the establishment of the granulating process. After the latter has fairly commenced, or even before, the paint again constitutes, according to my experience, the most soothing and eligible application. It is proper to add, that I have never seen a case, or heard of one, in which the use of this remedy, however liberally indulged in, was productive of the slightest injury.

From the extraordinary efficacy of white lead, prepared and applied in the manner above mentioned, a certain quantity of this article should constantly be kept on hand on board our steamboats, in breweries, soap factories, and similar establishments, where burns and scalds are of such frequent occurrence. It might thus always be employed with the least possible delay; a circumstance of no little moment, both as it respects the immediate comfort of the patient, and, in many cases, his ultimate recovery.

IX.—AFFECTIONS OF THE EXTREMITIES.

Affections of the Articulations.

Under this division of our subject, very little of novelty or of interest is to be found, I apprehend, in Kentucky surgery. Scrofulous diseases, judging from my personal experience, are sufficiently common, and not generally, I think, very judiciously managed. Much of this kind of business is in the hands of empirics, who, under the confident assurance of their superior skill and the superior efficacy of their remedies, hold out delusive hopes of cure in cases where none but the most consummate knowl-

edge and the most devoted and assiduous attention can effect the slightest benefit. These remarks are particularly applicable to scrofulous affections of the hip-joint, technically denominated coxalgia, or morbus coxarius, which are usually so stealthy and insidious in their mode of invasion as to be overlooked, both by the patient and his physician, until it is too late to prevent organic mischief. Patients laboring under this malady are constantly presented to my observation, the true nature of whose disease has never been even suspected by their professional attendants, and the consequence, with many, is that it is too late to render them any essential benefit. The affected structures are disorganized, the joint is horribly deformed, and the miserable subject is a cripple for life. In short, I know of no class of affections in which our practitioners are less informed, or in which there is greater room for improvement in our diagnosis and practice.

Lacerated Wound of the Shoulder-joint.

Dr. Samuel R. Sharpe, of Maysville, has furnished me through Dr. Frazee, of this city, the following interesting case of injury of the shoulder-joint. A stout, muscular Dutchman, of middle age, while engaged in drawing logs from the river to a saw-mill, had his arm completely severed at the shoulder by a piece of flange, armed with cogs. The head of the humerus was left in the scapular socket. The brachial artery was seen naked and projecting about two inches and a half below the axilla, but did not bleed. The muscles were much bruised and haggled, and it was necessary to smooth the stump with the scalpel. The brachial artery was secured with a ligature, to avoid the risk of secondary hemorrhage. Water dressings were applied, and in a short time the patient was perfectly well.

Injuries of the Knee-joint.

In the tenth volume of the Transylvania Journal of Medicine and the Associate Sciences, Dr. S. B. Richardson, formerly of Lexington, now of this city, has a paper on the "Nature and

"Treatment of Injuries of the Knee-joint," the object of which is to enforce the importance, first, of perfect bodily quietude, secondly, of immediate closure of the wound, and, thirdly, of maintaining the affected limb, previously bandaged from the toes up, in an extended and elevated position upon a cushioned splint, from three to four inches in width, and long enough to reach from the heel to the tuberosity of the ischium. By pursuing this simple course, commencing, if possible, before inflammation has set in, all morbid action, the author thinks, may be prevented, the wound will unite by the first intention, and in a week or ten days, the patient will generally be able to resort to moderate exercise of the knee. When inflammation takes place, he uses, with almost certain success, equal parts of cider-vinegar and a saturated solution of camphor in strong alcohol, applied as an evaporating lotion. Constitutional symptoms are abated by the usual antiphlogistic means, of which venesection and active purgation are the most valuable. This mode of treatment, Dr. Richardson considers, to some extent, as applicable to injuries of all joints; a view in which all judicious practitioners will, I am sure, heartily concur. Dr. Richardson's paper is illustrated by the recital of three cases, inculcating the importance of the measures here mentioned.

Under the title of "Injuries of the Superior Extremities," Dr. W. L. Sutton, of Georgetown, has published, in the *Western Journal of Medicine and Surgery*, for October, 1842, a valuable paper on fractures and dislocations of the arm or fore-arm, including a case of gun-shot wound of the axilla, and a case in which the left arm was torn off from the body along with the scapula, in consequence of the limb having become entangled in the machinery of a paper-mill. In the latter instance, the accident was complicated with injury of the abdomen, causing, as the writer supposes, death on the eleventh day. The subclavian artery was of course severed, but as there was no hemorrhage, no ligature was applied. The patient never complained of the shoulder, and the wound progressed favorably till the eighth day, when slight sloughing ensued. All his suffering was referred to the bowels, the tunics of which manifested decided evidences of inflammation.

The same paper contains a singular case of fracture of the humerus, just above the condyles, caused by a musket-ball, and terminating in ankylosis of the elbow-joint. An artificial joint formed at the seat of the injury, which afterwards supplied the place of the natural articulation, and admitted of rotation of the fore-arm in so perfect a manner that the patient was able to perform any kind of labor. This case is encouraging, as showing that ankylosis of the elbow is not always so bad an accident as is generally supposed.

Tumor of the Thigh

Under the title of "Tumor of the Thigh; affecting the Arterial System," Dr. E. L. Dudley reports* the particulars of a case, which occurred, some years ago, in the practice of Professor B. W. Dudley, and which is chiefly interesting on account of the peculiar accelerated condition of the pulse of the patient, a black man, of middle age. The tumor was situated upon the inner half of the thigh, directly over the femoral artery, and was of large size; but exhibited no appearance of malignancy, either before or after extirpation, notwithstanding the pulse, even after a course of preliminary treatment for two months, was constantly at 140. The morbid mass was remarkably heavy, and the greater portion of it was converted into bone. In twenty-four hours after the operation, the pulse fell to 90 in the minute, and in a few days to the healthy standard. The patient, whose general health seemed to be perfectly good from the first, recovered rapidly without a single unfavorable symptom, and was perfectly stout and well two years after the removal of the tumor. What was the cause of this singular change in the pulse?

Ununited Fracture.

Ununited fracture is a subject that has occupied much of the attention of surgical practitioners within the last fifty years. Various methods of treatment have been devised, among which

* Lawson's Western Lancet, for July, 1845, p. 112.

that by the seton holds a prominent rank. The only case of this occurrence that has been relieved in this manner, so far as my knowledge extends, happened in the hands of Dr. W. H. Donne, of this city, and is reported in the fourth volume of the *Western Journal of Medicine and Surgery*. A laborer, aged twenty-three years, of intemperate habits, was admitted into the *Louisville Marine Hospital*, on the 14th of June, 1840, with a transverse fracture of the tibia, three inches below the knee. The limb was treated with a roller and splints for six weeks, when, upon removing the dressings, it was found that no consolidation had taken place. All dressings were now laid aside, and the patient was permitted to exercise about the ward upon crutches for three weeks; but no improvement ensued.

On the 21st of August, upwards of nine weeks from the accident, a seton was introduced between the fragments, the operator having previously divided the skin and aponeurosis at the seat of the fracture and detached a few of the fibres of the anterior tibial muscle, to facilitate the passage of the needle. The hemorrhage was inconsiderable, and five days elapsed before there was any evidence of inflammation. The seton was removed on the 18th day; and on the 25th of September, a little more than a month from the time of its introduction, the wound made by it had healed. An abscess afterwards formed, and discharged about eight ounces of bloody pus. On the 20th of October, the limb was free from pain, and at the end of another week it was strong enough to enable the man to bear his whole weight upon it. By the middle of November he was discharged cured.

X.—THE BANDAGE, CONSIDERED AS A THERAPEUTIC AGENT.

To Dr. Benjamin W. Dudley appertains the merit, whatever it may be, of having been the first in this country to call, in a distinct and prominent manner, the attention of the American profession to the employment of the bandage, as a curative agent in the treatment of surgical affections. His first paper upon the subject, to which his mind seems to have been directed at an early period of his professional career, and to which he has probably devoted more study and reflection than any other practi-

tioner, either at home or abroad, was published in 1828, in the first volume of the *Transylvania Journal of Medicine and the Associate Sciences*, and earned for him, at once, the reputation of a bold, if not a successful, innovator. It is true, the application of the bandage had been recommended long previously; its happy effects had frequently been noticed in various injuries and diseases; and the highest encomiums had been lavished upon it by some of the surgeons of Europe, especially by that great luminary of the Scotch profession, Mr. John Bell; but it is equally true that the precepts which they had taught with so much earnestness and precision, had failed, in a great degree, to arrest the attention and to secure the confidence of their readers. In other and more comprehensive language, the bandage, despite all that had been said respecting it, remained unappreciated as a great therapeutic agent. The paper of Dr. Dudley, therefore, appeared at a most auspicious period, and was well calculated, from the position which he occupied as a teacher and a practitioner, to awaken the immediate attention of the profession to the subject. This was particularly the case in the South-west, among Dr. Dudley's own pupils, upon whom the instructions of their master made a deep and abiding impression in favor of the remedy under consideration. Accounts of numerous cases of surgical affections, successfully treated by the bandage, flowed in from every direction, testifying to the utility of this mode of compression. These testimonials must have been eminently gratifying to the Lexington professor, and must have had the effect of inciting him to further efforts to establish his practice upon just and philosophical principles. How far his efforts have been successful, a perusal of his writings and of those of his pupils will abundantly attest. A writer in a neighboring city, in his enthusiasm for Dr. Dudley and his bandage, declares that Dr. Dudley may be emphatically styled the hero of the bandage, as he has accomplished more with it than any other surgeon.

It affords me pleasure to be instrumental in bringing Dr. Dudley's views upon the subject prominently before the members of this Society, and through them before our professional brethren generally. No one who has properly used the bandage, and who is capable of properly applying it, can doubt, for a moment,

its utility as an important therapeutic agent; my own experience for the last twenty years fully satisfies me that this is fact; still, it is necessary that we should temper our enthusiasm, and that we should not allow ourselves to be betrayed into a species of hobbyism, calculated to mislead our judgment, and bring us into ridicule. We should recollect that the bandage, like the lancet, calomel, and tartar emetic, is a Sampson to do evil as well as good. If it be resorted to indiscriminately, it cannot fail to produce mischief, and to be followed by chagrin and sorrow and disappointment. Where the hand of a master is not present to guide, let ignorance and presumption pause and reflect before they enter upon enterprises, of which they cannot perceive the end. The evil effects of the bandage, in their aggregate results, can only be less than the injurious effects of mercury and other powerful agents of the *materia medica*, because this agent is less frequently employed in practice. Numerous instances have come to my knowledge, where limbs, and even life, have been sacrificed to its injudicious application. No one seems to be more fully aware than Dr. Dudley himself, of the mischief that may be thus induced. His language upon this point is clear and explicit, and cannot be too forcibly impressed upon the minds of our practitioners. "Like all other powerful agents," says he, "it is capable of doing much mischief, when resorted to under improper circumstances, or applied by those who have neither principles nor experience as their guide in practice."

But it is time that Dr. Dudley should speak for himself; my only regret is that I cannot quote more largely from his writings.

"The bandage is a remedy so accessible to all, so simple and so plain in its mode of action, so extensive in its application, so satisfactory and controlling in its influence, that the strange manner in which it has been overlooked by those who have been most reputably engaged in extending the usefulness of the profession, is calculated to excite astonishment. The catalogue of means by which the benefits of the science of surgery are secured to society, can furnish no parallel to it.

"When properly understood, the bandage is calculated to supercede, in a very great measure, the use of the knife and the

saw on the field of battle; nor will it be found less valuable in naval, hospital and private practice.

"A very large proportion of those cases which, in the exercise of the surgery of the day, are condemned to amputation, are susceptible of preservation by the judicious use of the bandage; while the life of the patient is in much less jeopardy than either after amputation or under the influence of common remedies directed with a view to the preservation of the limb. The confinement and sufferings of the patients, as well as the attention necessarily given by the surgeon, are all much curtailed when fractures are put under the skillful application of the bandage."*

In reference to the affections to which the bandage is more especially applicable, the author, writing in 1828, observes: "During the last fourteen years I have been constantly engaged in observing the effects of the bandage on gun-shot wounds and fractures; on fistulous, indolent, indurated, irritable, fungous, varicose, inflammatory, and sloughing ulcers; on contusions, sprains, and effusions; on inflammation of the cutis, capillaries, veins, arteries, nerves, ligaments, and capsules; on arterial and venous hemorrhage, on aneurisms, on the secretions, on ulceration, phlegmasia dolens, paraphymosis, and chordee, on lacerated and clean cut wounds, on the stump after amputation, on periostitis, fungus cerebri, and fungus testis; on the muscular, absorbent, sanguiferous, and nervous systems; and have daily and increasing evidence of its superiority over any other local application in the practice of the profession."

The above extracts are, it will be perceived, from Dr. Dudley's article "On the Use of the Bandage in Gun-shot Wounds, Fractures, &c.," in the first volume of the *Transylvania Journal of Medicine and the Associate Sciences*, published at Lexington, in 1828. The article occupies not less than thirty-six pages of the work referred to, and is illustrated by numerous cases, all tending to show the superiority of this method of treatment. In 1829, he contributed to the second volume of the same Journal, an equally elaborate paper "On the Use of the Bandage in the Treatment of Contusions, Lacerations, Effusions, &c.," setting

* *Transylvania Journal of Medicine and the Associate Sciences*, vol. 1, p 503. 1828.

forth, at great length and with much pains, the efficacy of mechanical compression in these classes of injuries, and giving it a decided preference over all other modes of procedure. Both these communications are of great interest, and worthy of an attentive perusal. I regret that the limits of my report prevent me from making further extracts from them; though this regret is lessened by the fact that the more recent contributions of Dr. Dudley upon some of these subjects, especially gun-shot wounds and fractures, will, in a great degree, obviate the necessity for this. The following extracts from the paper just adverted to, published in the *Transylvania Journal of Medicine*, for December, 1849, and for April, 1850, must close our remarks upon this interesting subject.

From a number of cases of gun-shot wounds, narrated by Dr. Dudley, I select the subjoined one, as it fully illustrates the method and the efficacy of his mode of treatment.

"A gentleman received a pistol shot, which shattered the humerus a little above the elbow, and separated its condyles from each other. Preparations to meet casualties being at hand, he was immediately attended by my associate on the occasion. After cleansing, the integuments were drawn into contact, the fractured bone having been properly adjusted. Thick compresses on either side, corresponding with the entrance and exit of the ball, with those of less thickness in front, were applied and sustained by a roller closely put on from the fingers to the shoulder. The disunited condyles were thus placed, and fixed immovably in close contact; the integuments maintained in close approximation; the mutilated soft parts sustained free of all engorgement; all atmospheric influence excluded; the entire limb was preserved free from swelling, of inflammation, of deep-seated abscesses; while the muscles were kept in a perfectly passive state. These dressings were moistened for the first four days, and then permitted to remain undisturbed for eight days after. The compound was thereby converted into a simple fracture; the re-union of the condyles by bone was complete; the muscles regained their power over the limb; and at the expiration of a month the use of the arm was restored.

"The intelligent of the profession are doubtless surprised that,

in this case, splints and machinery to control muscular contraction and prevent deformity should be overlooked; yet in science, as well as in practice, to remove the cause is certainly preferable to making battle with the effect.

“Being long convinced of the error propagated in the profession regarding the peculiarity of these (gun-shot) wounds, my solicitude, in all cases which have been placed under my charge, has been, by the aid of properly adjusted pressure, to preserve the surfaces of the interior lacerated fibres pressed closely together; to close the cutaneous openings, and confer thereby all advantages upon this wound, which are known to attend one from subcutaneous section; to prevent all tumefaction, inflammation, and its consequences by the skillful distribution of pressure above, below, as well as upon the seat of the injury; to apply the dressings with that very moderate force only which is necessary to secure these purposes, and which, at the same time, imposes unconditional quiet on all the muscles involved in, or associated with, the wounded part.”

The following extracts afford a good idea of Dr. Dudley's method of treating fractures:

“When a broken limb is skillfully encased in a sheath of properly prepared canvas, which is made to embrace and compress equally all points of the surface, not only contraction, but all susceptibility to muscular action, is thereby effectually suspended.

“The time and manner of its application are subjects especially worthy of consideration, and of the exercise of skill. All the muscles, which are to be placed under its control, should be thoroughly extended, provided they are in a state of preternatural contraction, preparatory to the application of the roller; while the force exercised in applying it must be in proportion to the amount of cellular tissue in the limb, or of the interstitial deposit, which may have been the product of effusion or of inflammatory action in the part.

“The muscles of the limb are thereby constrained to a perfectly passive state, of which fact a moment's reflection upon the conditions necessary to contraction will satisfy the most skeptical.

"The pain and suffering consequent to isolated pressure, the spasmodic movement of the muscles under the influence of machinery, are unknown to the subject of the roller, when this is skillfully applied; whether he is resting quietly upon a couch, or subjected to the flying ambulance upon the field of battle; nor is difficulty experienced, or pain induced, in the removal and re-application of the roller, as this may be required, either with a view to adapt it to the reduced size of the limb, resulting from interstitial absorption, or for the purpose of removing soiled dressings. An extension of the limb, with a power only equal to its own gravity, when it is elevated; for the purpose of removing and re-applying the roller, is accomplished without displacement, or the production of pain.

"Fractures are occasionally attended by such a profound shock to the sound parts, that the blood-vessels become extended beyond their capabilities for healthful reaction; while at other times destructive inflammatory excitement supervenes to the injury.

"These two opposite conditions, each involving immediate danger, cannot occur under the influence of a well-adjusted roller, while all the resources of the profession besides are not equal to this in controlling them where they have supervened.

"Morbid contractions of the muscles, attended by pain, swelling, and inflammation, succeeding to fracture, are the usual consequences of inappropriate treatment; and it is an extraordinary fact that authors of the highest celebrity enjoin upon the surgeon a practice, which renders deformity and imperfect use of the part almost certain; while symmetry and utility may, in many such cases, be perfectly restored under the influence of a different treatment, which is no less rational than successful.

"That distressing disease which attacks the terminal phalanx of the thumb and fingers, the bone-felon, is followed by the loss of the bone and soft parts, as high as the second joint. In the early stage of the disease, and before suppuration has taken place, it may always be promptly cured by the close application of the roller, using the precaution to destroy the sensibilities of the part first, by gentle and progressively increasing pressure with the hand for a few minutes; or the part may be laid open with the

scalpel and the morbid secretion removed from beneath the periosteum upon the point of the instrument. But when suppuration has taken place, and the matter is discharged by ulceration, an early occasion must be sought to remove the phalanx by wrenching it off from its connections with the capsule, ligaments, and cartilage of the joint.

“When the extraction of the bone is delayed for some weeks after ulceration has taken place, some flatness of a dimple, on the ball of the thumb or finger, is liable to be present after recovery. When the extraction of the bone by forceps is attempted too promptly, its connections with the soft parts composing the joints, will not yield to the instrument; while no difficulty will be encountered after waiting from ten to twelve days. In this stage of the disease, the soft parts will be found in a tumid state, and, by gentle pressure in the palm of the hand, progressively increasing, much of the diameter may be thrown into the longitudinal dimensions of the swelling. From fifteen to eighteen days is generally occupied in a reproduction of the phalanx. Sufficient pressure must be applied to preserve the proper length of the bone; while care may be taken to avoid so much as would give it an unnatural extent—an occurrence which appeared in a case under my charge, in the family of a cotton-spinner of this place, Mr. P., who threatened a suit at law to recover damages, on account of treatment which rendered the thumb too long. Quite recently, a young lady of this place, returned home from a boarding-school abroad, where she had for some weeks suffered with the ulcerated stage of bone-felon on the thumb. The bone was forthwith removed by means of a pair of forceps, and the phalanx was re-produced under the influence of three or four dressings; but there is to be observed a small depression in the ball of the thumb. Similar cases, for the last twenty-years, have been of frequent occurrence, with invariably successful results.”

As an appendix to this branch of my subject, it is proper that reference should be made here to the following contributions to our periodical literature, comprising accounts of cases of gun-shot wounds, fractures, ulcers, sprains, and other affections, successfully treated with the bandage.

Case of Gun-shot Wound of the Elbow-joint, treated by the

Bandage. By Dr. Jacob S. Swan, of Henderson county.—Transylvania Journal of Medicine and the Associate Sciences, 3, 570: Lexington, 1830. A large buck-shot entered the articulation, at the lower edge of the tendon of the biceps, and issued a little behind the radius. The hemorrhage was profuse, and was supposed to emanate from the humeral artery. No fracture existed. The joint recovered its functions entirely.

A case of Fracture of the Thigh-bone. By Thomas L. Caldwell, M. D., of Louisville. Louisville Journal of Medicine and Surgery, 1, 114: Louisville, 1833. The fracture was compound, oblique, and situated between four and five inches below the great trochanter; no permanent extending apparatus was employed, and the parts united without shortening of the limb.

Cases of Fracture treated by the Bandage, by Professor Dudley. Reported by James M. Bush, M. D. Transylvania Journal of Medicine and the Associate Sciences, 9, 97: Lexington, 1836. The object of this communication is to show the importance of the bandage in the management of this particular class of injuries. "Few days," says the author, "pass in which the remedy is not employed by Dr. Dudley in the treatment of local injuries, and with the most unvarying success. Except in fractures of the fore-arm, he rarely finds it necessary to use a splint; and in his long and extensive practice he has amputated but a single leg in consequence of fracture, and that was in the case of a maniac, who could not be controlled.

Remarks on Mechanical Pressure, applied by means of the Bandage; illustrated by a variety of cases. By J. M. Bush, M. D., of Lexington. Transylvania Journal of Medicine and the Associate Sciences, 10, 53: Lexington, 1837. "The prominent object," says the author, "of these very limited remarks is to detail a number of dissimilar cases of disease, treated in the exclusive surgical practice of Professor Dudley."

Fracture of the Neck of the Thigh-bone within the Capsular Ligament. A case of this kind, occurring in a girl eight years old and terminating in complete restoration of the limb, is given by Dr. Robert Peter, of Lexington.* The accident was caused by a

* Transylvania Journal of Medicine and the Associate Sciences, vol. 8, p. 453. Lexington, 1836.

violent fall upon the great trochanter against a fence. The child walked about for a week after the accident, complaining merely of a constant pain in the groin, and having a limp in her gait. The limb was shortened, but was easily restored to its natural length, and the patient was unable to flex it upon the pelvis. A long cushion, made of wool, was interposed between the extremities, from the heels to the perinæum, and to this both members were secured by a common roller, several turns of which were also made round the buttocks, to paralyse the external muscles of the pelvis. The patient was kept on her back on a mattress, and the dressings were renewed about every forty-eight hours. At the end of a month, the treatment was discontinued, and the girl was able to walk about with the aid of a crutch.

It is to be regretted that the reporter of this case has not given a more circumstantial account of it. The diagnosis of fracture of the neck of the thigh-bone within the capsular ligament is often exceedingly obscure, and, in the present instance, it has certainly not been satisfactorily stated. The accident is emphatically one of advanced life. I am not acquainted with a solitary instance in which it took place in so young a subject. In two hundred and twenty-five cases, witnessed by Sir Astley Cooper, only two occurred under fifty years of age. In the *Medico-Chirurgical Transactions of London*, Mr. Stanly reports an instance in a youth of eighteen.

The Bandage in the treatment of Fractures, Ulcers, Gun-shot Wounds, Hemorrhage, &c., &c. By Theodore S. Bell, M. D., of Louisville. Two articles in the *Western Journal of Medicine and Surgery*, for 1850. The papers of this writer, embracing together eighty-five pages, are replete with erudition, sound criticism, and practical discrimination. He avows himself a warm advocate of the bandage, in the treatment of various surgical affections, and adduces numerous cases in illustration of the views which he so ably discusses. His articles are written with force and clearness, and afford abundant evidence, upon every page, that he is thoroughly familiar with his subject. With the exception of the "hero of the bandage," he has probably published more on the bandage than all other American physicians

and surgeons put together. We have room but for one extract, the last paragraph of Dr. Bell's paper.

"But I hope I may be indulged in the confident expression of the belief, founded on long and well observed testimony, that a careful study of the bandage is worthy the attention of all medical men; and I feel persuaded that he who is without the knowledge of its great capacity and powers, is without the possession of one of the most important elements of success in surgery."

Fracture of the Clavicle.

A simple, easy, and efficient method of treating fractures and dislocations of the clavicle, has long been a desideratum with professional men. A vast amount of apparatus has been devised for securing this object, but very little, if any, possesses the requisite fitness or adaptation, while much the greater proportion is absolutely useless, or, what is worse, decidedly prejudicial. Notwithstanding his best directed efforts, the surgeon but too often finds, in these lesions, that it is impossible to effect a cure without deformity, much to his own mortification and the detriment of his patient, who often remains a cripple for life. Under these circumstances, the practitioner should hail with pleasure every suggestion calculated to aid him in the successful management of this class of affections. How far the treatment which I am about to describe, may be free from the objections that have been urged, and, in most instances, urged very justly, against the various contrivances that have been presented to the consideration of the profession, I am not prepared to affirm, as I have never tried it. It is described in a paper entitled "Suggestions in Relation to the Treatment of Fractures and Dislocations of the Clavicle," by Dr. E. L. Dudley, in the *Transylvania Medical Journal*, for August and September, 1851, and is founded upon a knowledge of the practice taught by Professor B. W. Dudley. The subjoined extracts will convey an accurate idea of this new process:

"For many years Prof. Benj. W. Dudley has managed these cases with dressings composed of two large handkerchiefs, or of a broad roller. Remembering the relationship existing between

the humerus and scapula—that they are firmly connected at the shoulder-joint—and that the acromion is even more intimately bound to the outer end of the clavicle, it is easily perceived that the humerus may be employed as an agent by which to push the shoulder *upwards, outwards, and backwards*, and it is quickly conceived that these movements tend of necessity to increase the distance between the sternum and the point of the shoulder, and to remove all pressure from the clavicle which extends as a brace between these points.

“Imagine a case of dislocation or fracture of the clavicle, and let us attempt to describe the simple process of dressing as it is practised by Prof. Dudley. The surgeon, placing himself behind the patient—who should be seated upon a stool or a chair with a low back—places one hand under the elbow of the injured side, flexes the arm upon the chest, and with the other hand passed around the patient’s neck, grasps the wrist. Pulling upwards now, with both hands, the surgeon should draw the patient’s elbow towards the centre of the chest. In this position the operator will find that he can exercise a vast amount of power, and to the very best advantage; it is almost impossible to pull upon the arm without forcing the shoulder upwards, outwards, and backwards by the oblique pressure of the humerus. Directing an assistant to hold the elbow of the patient and to maintain the upward pressure, the surgeon examines along the clavicle, and increases or lessens the extension until the ends of the bone are in perfect apposition. Having a bandage four inches in width, and eight yards long, ready for the purpose, with a loop at the end so arranged as to fit nicely around the elbow, the application is commenced. The loop being placed around the elbow, a turn of the bandage is made, passing over the injured shoulder, around the body, under the axilla of the opposite side, and around in front until it has passed over the elbow of the injured member. A figure 8 turn around the elbow brings the bandage in the same position as when the first turn was commenced, and each succeeding circle thus made brings the extending power to bear in the proper direction. After three or four circular passages of this character, the roller is passed twice around the body, so as

to secure the arm firmly against the chest, and secured at several points with pins so as to prevent displacement.

"The pressure thus applied acts only in the neck, and the back of the arm and fore-arm. The blood-vessels and nerves are not at all involved, and if a silk handkerchief is folded in the form of a pledget and placed on the back of the neck so as to relieve that part from pressure, the dressing causes very little inconvenience. I have had patients to wear the dressing, thus applied, until the bone had united, and not a single excoriation was to be seen.

"In the treatment of children, handkerchiefs may be employed with perfectly good results, but they require careful application. A bandage may be constructed in a few moments which answers an admirable purpose. A neatly fitting pocket, of triangular shape, should be made, adapting itself perfectly around the elbow, while the arm is flexed so as to bring the hand to the opposite shoulder. Straps are easily adjusted to the pocket, so as to bring the elbow upwards in front of the chest, and to fix the arm firmly to the body.

"The advantages of this method are obvious. It enables us to place the bone in proper position, and to maintain it so for an indefinite period, and at so slight a cost of comfort as to cause very little complaint. As to the precise degree of force to be employed—that must be measured by the extent of resistance, encountered in the reduction of the fracture or dislocation. The reduction of the injury is easily observed, and the bandage should be applied with enough power to secure the just apposition of the two surfaces."

Dr. E. L. Dudley is not very fortunate when he asserts that "the old apparatus of Desault, with various modifications, is the universally received means of relief in these cases." With the exception of Professor Gibson, of the University of Pennsylvania, I know of no writer or practitioner in America who recommends or uses this apparatus. If there is any contrivance that is more frequently resorted to than another in fractures or dislocations of the collar-bone, it is that of Dr. Fox, of Philadelphia, which combines, it appears to me, great simplicity with every advantage that can be expected from any dressing of the kind.

Whether it is equal to that of Professor Dudley I have no data by which to judge. I can only say that I have employed the apparatus of Dr. Fox, upon various occasions, with the most happy and gratifying results.

The same Journal contains an account, by the same writer, of Professor B. W. Dudley's mode of treating fractures of the acromion and coracoid processes. We regret that our limits will not permit us to give an account of the apparatus.

XI.—ELM BARK, CONSIDERED AS A SURGICAL AGENT.

The American profession are indebted to Dr. William A. McDowell, formerly of Louisville, now of Evansville, Indiana, for some very useful suggestions in regard to the employment of the bark of the slippery-elm tree—*ulmus fulva* of the botanist—for surgical purposes. He recommends it as being particularly adapted for bougies, tents, and catheters. His attention, it seems, was first directed to the subject by Dr. John Fleece, of Danville, Kentucky, whose assertions of its beneficial effects have been amply confirmed by his own experience, extending through a period of many years.

In commenting upon this article, in its surgical relations, I shall avail myself freely of a paper upon the subject by Dr. McDowell, in the Western Journal of the Medical and Physical Sciences, for 1837. Although the author, at the time of its publication, was a resident of Fincastle, Virginia, yet he removed soon after to this city, where he practised medicine and surgery until a few years ago, and where he had frequent occasion to use the elm bark. For this reason, but more especially from the fact that the remedy was first suggested to Dr. McDowell by a physician of Danville, where he had studied his profession under his uncle, Dr. Ephraim McDowell, it may, with great propriety, be regarded as of Kentucky origin.

The first case in which Dr. McDowell employed the bark as a tent, was one of lumbar abscess, which had been punctured about the middle of the thigh, and the opening of which had been liable to frequent obstruction by flakes of lymph and inspissated pus, much to the discomfort of the patient, who seemed to be in

a hopeless condition. Considering an enlargement of the fistula obviously called for, a piece of the inner bark of the slippery-elm, smoothly polished, rounded at the point, and soaked in water, was introduced into the bottom of the sac, where it remained twelve hours without any disagreeable sensation. In this manner one tent after another, the last being always smaller than the previous one, was employed, until the opening was dilated to the requisite dimensions to admit of a free discharge.

Dr. McDowell informs us that he has found slippery-elm tents particularly useful in the treatment of mammary abscess, attended with long and deep sinuses. The tents are to be made thin, and softened in water until they are sufficiently flexible to admit of their easy introduction. As soon as the secretion of healthy pus begins, the tents are to be a little shortened every day, but still used as wide as ever, that no violence may be done to the granulations.

"In all abscesses, sinuses, or wounds," says Dr. McDowell, "requiring tenting, the slippery-elm merits a preference. To widen a sinus, or prepare it for the extraction of loose bones during the process of exploration, their superiority is obvious." He gives a case of gun-shot wound, in which this substance was used with great advantage.

Dr. McDowell speaks in terms of high commendation of the slippery-elm bougie in the treatment of strictures of the urethra. Indeed, he prefers it to every other article of the kind, both on account of the facility of its introduction, and on account of the greater permanency of the cure. "It is particularly adapted," he thinks, "to all strictures, proceeding from spasmodic contraction, or from circular thickening of the membrane, or from callosity, or indurated enlargement of the surrounding corpus spongiosum, or of the prostate gland." The bougie is made of the inner bark of the elm, shaped to the caliber of the urethra, rendered perfectly smooth, and immersed, for a few minutes previous to its introduction, in tepid water.

It is well known that the elm-bark bougie, since it was brought before the notice of the profession, has occasionally broken off in the urethra, or bladder, and afterwards become the nucleus of a urinary calculus. Of its liability to this accident, Dr. McDowell

was fully aware, and he accordingly enjoins proper precautionary measures in regard to its manufacture. "Some caution," says he, "is necessary in using bougies, or catheters of elm. Although this bark possesses a degree of tenacity surpassed by that of few trees of the forest, yet when seasoned, and in a very dry state, it would be liable, in the hands of a careless or awkward operator, to break off in the urethra or bladder. To obviate this danger, it should be immersed in water, for a longer period when it is very dry, which will restore tenacity to its outer fibres."

Dr. McDowell gives the following directions for the preparation of the elm-bark catheter. "I take a thin strip of the inner bark, from one to one and a half inches wide, seasoned just so much as not to destroy its pliability, bevel the edges, and smear them with mucilage or glue, wrap the bark either spirally or longitudinally around a stilet, and roll with tape. The wire should be smeared thinly, but completely, with bees-wax and tallow, to prevent its being retained by the glue." Dr. McDowell thinks that an instrument thus constructed would possess a decided advantage over the ordinary one, in case it is necessary to leave it in the bladder; as from the mucilaginous character of its surface it would prove an excellent emollient to the inflamed or lacerated parts with which it is brought in contact.

"I have treated," says the author, "three cases of this disease—*fistula lacrymalis*—with slippery-elm bougies. In two of them, a slender probe could be passed from the abscess through the ductus ad nasum, into which bougies were introduced.—Cures were effected in each case in about a fortnight."

A case has been mentioned already in which this gentleman cured, in a very short time, with the slippery-elm bougie, a very tight stricture of the vagina.

My personal experience with the elm bark, as a surgical agent, is comparatively limited, and I am therefore, perhaps, not able to speak of it as it deserves. I have used it both in the form of tents and bougies, and occasionally with very good effects. As a tent, it is better than the ordinary one in a great many cases of sinuses, especially in those consequent upon abscess of the mammary gland, psoas abscess, and hip-joint disease. It is always easy of introduction, and is generally more agreeable to the parts

than linen or muslin, the substance in ordinary use; at the same time that it answers much better as a dilator. In the treatment of stricture of the urethra it might be employed as a valuable adjuvant, especially in the milder forms of the malady, and also after division of the contraction in the callous variety. On account of its brittleness, the instrument should be used with great caution, for the reasons already stated. On the whole, I feel disposed to recommend a further trial with this article for the various purposes suggested by Dr. McDowell. It is probable that the construction of the elm bougie might be so improved as to divest it of many of the objections that have been urged against its employment, and that it might thereby be rendered a most valuable acquisition to our armamentarium.

XII.—AMPUTATIONS.

Accidents requiring amputation of the limbs are of frequent occurrence in every community, and there is no class of cases in which the skill of the surgeon exhibits itself to greater advantage. Fortunately, the operation is much less common now than formerly, and there is reason to believe, that, as our knowledge of the healing art increases, the necessity for its performance will still further diminish. It was the proud boast of the Father of American Surgery, that he never amputated a limb on account of external violence, except in one instance, where the case was under his charge from its commencement. Whether Dr. Physick was indebted for this circumstance to extraordinary luck, or to unusual skill in the exercise of his profession, the fact is worthy of being recorded in connection with the department of surgery under consideration. It is much to be feared, that, with all our caution and foresight, the amputating knife not unfrequently takes the place of milder means, and that limbs are sacrificed to an itching desire for the notoriety which arises from an operation. I am certain that I have been the means, more than once, of preventing this operation where there was no earthly necessity for its performance, and where the patients recovered, in due time, a very excellent use of their condemned limbs. In Louisville, where in consequence of the numerous accidents in our foundries

and on board of our steamboats, amputations are rather frequent, I have repeatedly had occasion to witness the extraordinary dexterity with which this operation has been executed by some of our young surgeons. From fifteen to twenty seconds generally suffices for the removal of a leg, a thigh, or an arm; two cuts, and a few strokes of the saw, and the limb is off! I do not think that even Parisian skill could boast of greater speed than this.

It is not generally known to the profession that Kentucky has furnished the first case of amputation at the hip-joint that has ever occurred in the United States. The honor of having performed this bold and formidable operation belongs to Dr. Walter Brashear, a native of Kentucky, and for a number of years a practitioner at Bardstown. The case occurred in August, 1806, eighteen years prior to the much eulogized case of Dr. Mott, of New York.* The subject was a mulatto boy, seventeen years of age, belonging to the monks of St. Joseph's, of Bardstown. He had a fracture of the thigh, complicated with severe injury of the soft parts, and completely recovered, living in good health many years after. Dr. Brashear had no precedent to guide him in his hazardous undertaking, for the cases of Larrey, and other army surgeons of Europe, had occurred only a short time before, and were then entirely unknown to the bold and adventurous backwoodsman, and the operation was performed upon a very novel plan, comprising two distinct stages. In the first, the thigh was removed about its middle, in the ordinary manner; and, in the second, the remainder of the bone was separated from its muscular connections, by a long incision on the outside of the limb, and disarticulated at the socket. Although the method here pursued is not in harmony with the science of the present day, in similar cases, yet considering the date of its performance, and the fact that Dr. Brashear was obliged to rely entirely upon his own resources, it justly challenges our admiration, and gives us the most exalted opinion of the operator's ingenuity, judgment and skill.

It is not a little singular that Dr. Brashear should have been so regardless of his own reputation and of the fame of his native

* Velpeau's Operative Surgery, by Townsend & Mott, preface, vol. 3.

State, as never to have published an account of a case, which was so well calculated to place him in the highest rank of his profession, both at home and abroad. At that time but few successful cases of amputation at the hip-joint had occurred abroad, and the performance of such an operation in the wilds of America would, had it been made public, have obtained for its author a world-wide renown. In a word, it would have covered Dr. Brashear with glory, and formed then, as it unquestionably forms now, one of the brightest gems in the diadem of Kentucky surgery.

I cannot refrain here from mentioning an anecdote relative to Kentucky's distinguished surgeon and Kentucky's late illustrious statesman. It is related in the New Orleans Medical Journal, for July, 1845, and I beg leave to transcribe it for your gratification. "During the winter of 1843-4, when the Hon. Henry Clay was on a visit to this city, we had the pleasure," says the writer, "together with some twenty-five or thirty physicians, of spending the evening with him at the house of a medical friend. Whilst at table, one of the company proposed *"the health of the venerable Dr. Brashear, the first and only surgeon in Louisiana, who has successfully performed amputation at the hip-joint."* Mr. Clay, who was sitting by the side of Dr. Brashear, with characteristic good humor, immediately observed, *"he has you on the hip, Doctor,"* to the great amusement of Dr. Brashear and the rest of the company."

Of the personal history of Dr. Brashear not much is known. From a communication with which I have recently been favored by his son, R. B. Brashear, Esq., of the Parish of St. Mary, Louisiana, I learn that he was born in Prince George county, Maryland, on the 11th of February, 1776. Eight years after, his father, Nacy Brashear, emigrated to Kentucky, and settled near the Long Lick, within three miles of Sheppardsville. Walter was the seventh son, and was, therefore, according to the old idea, destined for the medical profession. After a limited education at such institutions as were then within the reach of his scanty means, he entered the literary department of Transylvania University, where he acquired a knowledge of the classics, especially the Latin language. In 1796, he commenced the study of

medicine under the auspices of Dr. Frederick Ridgely, of Lexington, a gentleman who had served with great credit as a surgeon in the Continental army. Two years after he attended a course of lectures in the University of Pennsylvania, under Rush, Physick, Barton, and other distinguished teachers. In 1799, he sailed to China as surgeon of the ship *Jane*, and while there amputated a woman's breast, which was probably the first operation of the kind among the Celestials. Having learned the Chinese method of clarifying ginseng, he now, abandoning the profession for a time, devoted himself to mercantile pursuits, and proving ultimately unfortunate, in 1813 he moved from Bardstown to Lexington, where his career as a professional man may be said to have commenced.

It was previous to this period, however, that, while merchant and surgeon, he performed the amputation of the hip-joint, above described. His method, as we have already seen, was peculiar. The operation was done in the presence of Dr. Burr Harrison and Dr. John Goodtell, whose patient the boy was. He seemed to possess peculiar tact in the treatment of the diseases of the bones and joints, especially in cases of scrofulous enlargement, vulgarly called white swelling. He was also very successful in the management of fractures of the skull, and had a set of trephining instruments constructed, under his immediate direction, in Philadelphia, which he regarded as much superior to those in ordinary use. We have already spoken of him as a lithotomist.

He practised medicine and surgery in Lexington from 1813 to 1817, with great success, and was the first, in the West, to change from the depleting to the stimulating plan of treatment in the so-called "cold plague," prevalent, and very fatal, during a portion of that period.

Being seized anew with the ginseng fever, Dr. Brashear left Kentucky, and in 1822 he removed his family to the Parish of St. Mary, where he had previously held property. He is now a planter, in good health, and of great activity for one of his age, practising only among his particular friends and neighbors, whose partiality induces him to render them his services free of charge.

Dr. Brashear seems to have a mind of great originality, and of

infinite resources. Nature had evidently designed him for a great man, and it is much to be regretted that he ever permitted himself to be drawn aside from his professional pursuits. He has been, alternately or successively, doctor, merchant, legislator, lawyer, and naturalist. For some years he served his adopted State in the Senate of the United States.

In the Transylvania Medical Journal, for June, 1851, Dr. Raphael, of this city, gives a case of Chopart's amputation for caries of the foot, which deserves notice here, chiefly, because it is probably the first operation of the kind executed in Kentucky. The patient recovered, with an excellent use of his limb. Last summer I performed a similar operation for disease of the tarsal bones, with a like happy result, upon a young farmer, of the name of Stine, from Indiana.

It is a source of deep regret that we have no statistics, either of private or hospital practice, of the results of amputations in Kentucky. Our neglect, in this respect, is unaccountable, and has led to the loss of a vast amount of valuable matter; matter that might, had it been carefully preserved, be most beneficially applied to the amelioration of suffering humanity. In the Louisville Marine Hospital, of this city, until recently the only institution of the kind within the limits of our State, and which, since it has been placed under the judicious administration of its present superintendent, Dr. Fisher, is one of the best managed charities in the country, no *systematic* record is kept of any of the numerous cases of disease and accident that are annually admitted into its wards. Such neglect is absolutely criminal; and I trust that the guardians of that establishment, which has now been dispensing its blessings for upwards of thirty years, and which was founded by the liberality of one of our most worthy citizens, will no longer permit its existence. There is not a solitary class of cases, medical or surgical, the nature and treatment of which might not have been more or less thoroughly elucidated, during the period adverted to, had a faithful record of them been preserved. Not only the medical profession, but every citizen of Kentucky, should feel a deep interest in the subject.

Dr. Samuel B. Richardson, of Louisville, has furnished me

with the particulars of an interesting case of amputation of both thighs in the same subject. The cause leading to the necessity of the operation was mortification of the legs and feet, consequent upon a transverse fracture of both patellæ. The accident was occasioned by muscular effort in jumping into a sand-pit, and the patient, who was in good health at the time, had been treated with the bandage. The sphacelus came on about the end of the third week, and resisted every effort that could be made to arrest it. The man was thirty-five years of age, fleshy, and addicted to the free use of ardent spirits. He recovered, and became extremely fat. Dr. Richardson is inclined to think that the injudicious application of the bandage was the cause of the mortification.

I am not aware that any surgeon in Kentucky, excepting myself, has performed amputation at the *ankle-joint*. My case is worthy of mention, because of the peculiar manner in which I was compelled to form the principal flap. The patient was a poor Irish girl, about twenty years of age, affected with caries of the astragalus and calcaneum, with extensive ulceration and thickening of the integuments of the heel. Indeed, the soft parts in this situation were so extensively diseased that it was deemed quite impossible to save them. The flap was, therefore, taken from the upper part of the foot, and answered, I am happy to say, the purpose most admirably. It was made by dissecting up the common integuments, with a small catling, nearly as far forwards as the metatarso-phalangeal articulations, and laterally as far as the inner and outer margins of the foot. Disarticulation was then effected, the tendo-Achilles severed a short distance above its attachment to the calcaneum, and the altered soft parts cut away. The articular cartilage being perfectly sound, all that remained to be done was to saw away the projecting ends of the tibia and fibula, so as to form a smooth, square surface. The anterior and posterior tibial arteries alone required a ligature. Only a few ounces of blood were lost. The flap being found to be rather large, a portion was cut away, when the edges of the wound were brought together with four sutures, adhesive strips, and a roller.

A considerable part of the wound united by the first intention ;

but the rest, owing to a slight attack of erysipelas, healed by the granulating process. The patient remained feeble for several weeks; but when I saw her last she was rapidly improving in health, and was able to walk about her room on crutches. The stump was nearly well, and bade fair to answer an excellent purpose.

The ordinary mode of performing this operation, is, as is well known, to make the principal flap at the expense of the soft parts in the sole of the foot, which is always desirable when these parts are in a sufficiently healthy condition to admit of their being retained. Where the reverse is the case, a very useful cover for the bones may generally be obtained in front, as in the instance above described. When the calcaneum alone is involved, excision of this bone, either in part, or wholly, would be preferable to amputation at the ankle-joint. Such an operation has, of late, been several times performed, with excellent effect, by European surgeons.

Amputation of the ankle-joint, when practicable, should generally, I think, be preferred to removal of the leg in its continuity; inasmuch as the stump is usually well calculated to bear the superincumbent weight, and admirably adapted for the accommodation of an artificial foot.

XIII.—TRAUMATIC TETANUS.

Of this obstinate, and, unfortunately, too frequently fatal disease, several cases have been successfully treated by Kentucky physicians; and, although the means by which they effected this result, comprise nothing whatever of novelty, yet the facts deserve to be recorded for the encouragement of practitioners.

The first case to which I shall refer, occurred under the observation of Dr. E. F. Wilson, * of this city, in a girl nineteen years of age, who, between three and four months previously, had wounded the sole of the foot with a piece of glass, which had never been extracted. When Dr. Wilson first saw her she had had twelve paroxysms of spasms, and was laboring under well

* Western Journal of Medicine and Surgery, vol. 3, p. 91, 1841.

marked symptoms of opisthotonos. The wound was nearly healed, though there was still some appearance of inflammation about it. Fifteen grains of tartar emetic were administered in two doses, and in the course of an hour the muscular contraction had almost completely subsided, followed by great prostration and coldness of the extremities. Numerous sinapisms were now applied, and the patient took twenty grains of calomel with two of opium. The next day she was much better; there had been no return of her paroxysms; and she had rested pretty well the previous night. The wound being dilated, four fragments of glass, of more than a quarter of an inch in size, were extracted. From this time on, or, rather, from the time of the administration of the antimony, there was a steady improvement without any return of tetanic spasms. On the seventh day, she was walking about, apparently in as good health as usual.

The narrator of this case ascribes the recovery of the patient exclusively to the effects of the antimony; but it seems questionable whether it exerted any other agency than that of allaying muscular contraction. It is reasonable to suppose that the extraction of the foreign bodies had great influence in establishing the cure.

A case of traumatic tetanus, consequent upon a wound of the leg from a pistol charged with a large quantity of tow, is given by Dr. Samuel S. Emison, of Scott county, in the *Western Journal of Medicine and Surgery*, for April, 1850. The patient, a stout, athletic man, twenty years old, was hurt on the 25th of December, and symptoms of the disease showed themselves, for the first time, on the 13th of January, the wound being nearly healed, though there was still some swelling of the ankle. On the 19th, he was bled to the amount of sixteen ounces, without relief; and, on the following day, when Dr. Emison first saw him, he took twenty-five grains of calomel and two of ipecacuanha, followed by an ounce and a half of castor oil. The purgatives having produced free action, large doses of morphine and laudanum were resorted to, and repeated frequently until the 15th, when, at 6 o'clock in the evening, as little impression had been made upon the disease, half a drachm of quinine was added to the prescription. A well marked remission followed, and the

next day one drachm of quinine was given at one dose. The spasms now became much less frequent and severe, and, under a continuance of the treatment for four or five days longer, they entirely disappeared.

A case of a similar kind is reported, in the same Journal, for January, 1851, by Dr. Theodore S. Bell, of this city. The attack was caused by a severe wound of the thumb in a nervous, sickly young man, of twenty-two, and manifested itself in the third week after the accident, in the form of trismus, which was soon succeeded by emprosthotonos and opisthotonos. The treatment consisted of active purgatives, and of the free use of extract of Indian hemp and McMunn's elixir of opium. The wound was regularly dressed with warm poultices, aided occasionally by the addition of laudanum. The strength was supported by wine and nourishing food. Throughout the whole of the tetanic attack, a period of four weeks, the wound of the thumb remained stationary, and it was not until a month after its disappearance that it was completely cicatrized. The hemp, in this case, did not seem to exert any material benefit in mitigating or relieving the spasms, although it was faithfully employed up to the time of its termination. Active purgation, followed by the liberal use of McMunn's elixir of opium was generally productive of most benefit, though it is not stated to what particular remedy, or combination of articles, the cure was due.

My own practice has furnished me with only two cases of recovery from traumatic tetanus. The first was that of a young girl, of fourteen, the daughter of Mr. O'Bryan, on the Flat Lick road, whom I visited in consultation with the late Dr. Buck, of this city, and who, nearly a month previously, had run a splinter into the right cheek in falling accidentally from a rail fence. The puncture was situated about an inch from the nose, just above the attachment of the upper lip. The splinter was extracted immediately after the injury, but the parts continued to be tender and even painful, and in less than a week the girl, who was of a nervous, delicate constitution, was seized with lock-jaw. Dr. Buck had treated the case with purgatives, opiates, and anti-spasmodics, and iodine and leeches had been applied to the affected part, without any material benefit. The girl was pale and fee-

ble, and had but little appetite. Upon a careful examination of the part, I found a small circumscribed spot, exquisitely tender under pressure, and of almost fibro-cartilaginous hardness. I immediately took my knife, and completely dissected out the little tumor. Quinine and iron, with nourishing food and wine were then ordered; and in a few days the patient was well, having no further paroxysm of trismus after the operation.

The other case to which I refer, occurred near Bardstown, in Nelson county, in this State, where I saw it in consultation with my friend, Dr. C. P. Mattingly, to whom I am indebted for some of the details of the subjoined account. Mr. John Foxworthy, aged fifty years, of a sanguineo-nervous temperament, a farmer by occupation, a pretty free liver, and rather inclined to corpulency, got the fore and middle fingers of the right hand mashed by a wagon, between the second and third joints, on the 21st of March, 1848. The phalanges were completely comminuted, and supported merely by a few shreds of the common integuments. A physician in the neighborhood of Louisville, where the accident happened, being sent for, removed the injured parts with the scissors, and bound up the ill-formed stumps with a compress and bandage. In this condition Mr. Foxworthy rode home, a distance of about thirty-five miles, and then sent for his family adviser, who, instead of amputating the mutilated fingers, contented himself with prescribing a dose of purgative medicine, rest, and light diet, with some ointment for the sores. The hand soon became excessively painful; and on the 28th of February, the patient was seized with a sense of stiffness in the neck and jaw, with contraction and jerking of the muscles of the back, and occasional cramp in the stomach. These symptoms, which were always much aggravated by the slightest draught of air, were ascribed by the medical attendant to the effects of cold.

Dr. Mattingly saw the patient for the first time on the 1st of March, and advised immediate amputation of the fingers, as the only means likely to save his life. To this, however, he obstinately refused his consent; and all, therefore, that Dr. Mattingly could do was to pick out all the loose spicula of bone he could find, to apply emollient poultices, and to administer calomel and opium at intervals of from four to six hours.

On the 3d of March, there was no improvement; instead of this, indeed, the patient had spasms of the dorsal muscles every five or six hours, each lasting several minutes. Next day he was worse, the spasms being more frequent, longer, and more violent, notwithstanding the increased use of opium, anodyne injections, and a properly regulated temperature of the apartment. He now consented to have his fingers amputated, and I was accordingly sent for the next morning, when I performed the operation at the metacarpo-phalangeal articulations, the patient being fully under the influence of chloroform. I found the hand and fingers very much swollen, and exquisitely tender and painful: the tongue was somewhat coated, and the pulse hard and accelerated. The bowels had been thoroughly evacuated by medicine the day previously, but the appetite was much impaired, and Mr. Foxworthy had scarcely enjoyed any sound sleep since the occurrence of the accident.

After the operation, the patient had spasms for several days, but they became gradually lighter, shorter, and less frequent, until at length all the symptoms of tetanus disappeared, and he entirely recovered.

In the Transylvania Medical Journal, for November, 1851, is a case of traumatic tetanus, treated by Dr. E. L. Dudley, and reported by Dr. Robert Durret, which terminated successfully, with very little treatment. The patient, a man, aged twenty, had received a contused wound on the distal extremity of the middle finger, attended with the loss of the nail, seven days before. The paroxysms occurred very frequently; sometimes as often as every minute, and were most violent in the morning and during the night. He was admitted into the Louisville Marine Hospital on the 11th of October, about three weeks after he was hurt; and on the 12th, almost every muscle in the body was in a rigid state; he was unable to open his mouth more than one-fourth of an inch, his features were contracted and ghastly, and there was decided opisthotonos. He was ordered to be placed near the stove, to be kept perfectly quiet, to take nourishing broths *ad libitum*, and to apply hot bread poultices to the finger. On the 14th he was much better; he had slept four hours the previous night, and the spasms were less violent and

frequent. From this time on the improvement was progressive ; on the 18th he had the last tetanic paroxysm ; and on the 23d he was discharged cured. In this case no medicine was administered, except an occasional aperient.

Dr. E. L. Dudley, in some remarks appended to the above case, seems to lay great stress upon the fact that no active treatment, or, indeed, treatment of any kind, was employed. In an article immediately preceding Dr. Durrett's report, detailing the particulars of a case of ligature of the primitive carotid artery, where death was induced by tetanus, he holds the following language: "Not the least remarkable feature in the case is the fact that the man lived two weeks after the first appearance of the symptoms of tetanus, and that during that period he took none of the remedies usually employed in the desperate malady which finally destroyed him. In the succeeding article of the Journal," he continues, "is a report of several cases of tetanus which have fallen under my observation within the past few months. One of these, and the only one that recovered, was discharged from the Marine Hospital, of this city, a few days since. This case was, in addition to the remarkable fact of his recovery, interesting, because no active treatment was pursued."

Dr. Dudley evidently assumes here, that, because one man recovered under this management, the *nemio diligentia* is applicable as a general law, forgetting that in the other instance in which it was tried it utterly failed, although the patient lived two weeks after the disease began to manifest itself. I presume that few professional men would be willing to trust to such means, or to leave the task of curing so terrible a disease entirely in the hands of nature, skilful and competent as she no doubt occasionally is even here. They would be more disposed to adhere to the axiom, "Ad extremos morbos, extrema remedia."

In the Transylvania Medical Journal for October, 1850, is a short clinical letter on tetanus, with a case, by Dr. Raphael, of this city. A careful perusal has not left upon my mind the impression that it comprises any novelty, either in regard to the pathology or treatment of this malady, and I therefore deem any further notice of it unnecessary. The case accompanying the discourse ended fatally, but no dissection was made.

XIV.—EXSECTIONS.

Exsection of the Clavicle.

This bold, delicate, and extraordinary operation was executed for the first time in America, in 1813, by the late Dr. Charles McCreary, of Hartford, in this State. The subject of the case, as I learn from Charles F. Wing, Esq., of Greenville, who was intimately acquainted both with the patient and his surgeon, was a youth of the name of Irvin, fourteen years of age, laboring under a scrofulous affection of the right collar bone. A disease of a similar kind existed, at the period of the operation, in the right leg, from which several small pieces of bone were subsequently removed, and which became so much curved and shrunk as to be upwards of two inches shorter than the other. By degrees the parts got well, but the disease recurred two or three times afterwards, though it was always readily amenable to treatment.

Mr. Wing informs me that Dr. McCreary removed the whole of the collar bone, and that the patient survived the operation thirty-five years without any return of the disease. He died in Muhlenburgh county, in this State, in April, 1849, aged forty-nine. The loss of the bone did not seem to impair the functions of the corresponding limb.

The operation of Dr. McCreary reflects great credit both upon himself, and upon the American profession. Performed as it was in a remote and comparatively obscure part of the United States, and at a period when surgical science was but little cultivated, or appreciated, it is surprising that he should have ventured upon so daring an enterprise, an enterprise requiring the most consummate skill, and no ordinary share of anatomical knowledge; for its successful execution. Dr. Mott,* who performed excision of the collar bone sixteen years later, deems the operation, from the character of the structures involved in it, as the most important, difficult and dangerous operation that can be performed on the human body; and so, indeed, it must be regarded by every one who has a proper knowledge of the subject. Dr. Mott calls it his

* Travels in Europe and the East, p. 64: New York, 1885.

“ Waterloo operation ;” and believing that he was the first surgeon who performed it in the United States, he proudly claims the credit of it for his country, his city, and himself. Dr. Johnson, of New Orleans, who published a short and imperfect account of Dr. McCreary’s operation, in the New Orleans Medical Journal, for January, 1850, proposes to call it the “ Thames operation,” and claims the credit of it, and that justly, too, for Kentucky, and for Dr. McCreary.

It is proper to state that Dr. Mott’s operation was one of immense difficulty, requiring nearly four hours for its execution, and the application of about forty ligatures, and that he employed the term Waterloo, not because it was tedious, delicate and hazardous, but because it was performed on the 18th of June, the anniversary of the battle of Waterloo.

I have been anxious to obtain some information respecting the private and professional character of Dr. McCreary, but regret to say that all my efforts have been in vain. To none of my communications, addressed for the purpose to some of his relatives and friends, has any reply been received. I have learned, however, incidentally, through one who knew him well, that he was a bold and fearless practitioner, as well as a hard student, and that he died about the age of thirty-seven, from the effects of intemperance, to which he had been addicted for many years.

Excision of Scapula.

The following case occurred in my own practice, and has never before been reported :

A gentleman, Mathew Gracey, aged forty, of Eddyville, Kentucky, applied to me in September, 1850, on account of an enormous tumor of the right shoulder, first perceived about nine years ago. His general health had always been good, and was so at the time. The swelling, which arose without any assignable cause, was fifteen inches in its vertical direction, and fifteen and a half in the transverse. Its surface was nearly every where smooth, and its substance was hard and incompressible in its entire extent. The skin was sound, and there was no enlargement of the subcutaneous veins. Its superior boundary corresponded

with the shoulder joint; anteriorly it projected into the axilla; and below it reached as far down as the ninth rib. During the last three months, the tumor had been the seat of a dull, heavy, aching pain, extending about in different directions, most severe at night, and aggravated by the recumbent posture. The growth had increased rapidly within the last twelve months, and disqualified the patient for active exertion.

Having prepared the system by a course of diet and purgatives, I performed the operation of excision on the 26th of September. An incision, sixteen inches in length, was made from the superior angle of the scapula to the inferior extremity of the tumor, its direction being obliquely downwards and inwards. Another, beginning about five inches below the upper end of the first, and terminating about the same distance from its inferior end, was then carried, in a curvilinear direction, so as to include a small oval flap of the skin a little above the centre of the tumor. The integuments being reflected from the surface of the morbid growth, and the elevator and trapezius muscles detached, I sawed through the acromion process of the scapula, just behind the clavicle, and then divided the broad dorsal and anterior serrated muscles; carrying my fingers next underneath the tumor, and raising it up, I severed its connections with the ribs, cut the deltoid and other muscles of the arm, sawed the neck of the scapula, and thus removed the entire mass with comparatively little difficulty.

Several vessels required the ligature, and about twenty ounces of blood were lost in the operation. The edges of the immense wound thus produced were brought together by three interrupted sutures and adhesive strips, supported by a thick compress and a broad bandage.

No untoward symptom occurred after the operation; nearly the whole wound united by the first intention; and at the end of three weeks, my patient went home with every prospect of a long and prosperous life. In descending the Ohio river, however, he took a severe cold, from the effects of which he never recovered. A harrassing cough set in, accompanied by all the symptoms of pleuro-pneumonia, which were followed, about the middle of December, by those of hectic fever, under which he gradually sank

three months after the operation. No post-mortem examination was made. It is proper to add that soon after Mr. Gracey reached home, a small fungus appeared in the lower angle of the wound, which became red and painful, and obstinately resisted every attempt that was made to heal it.

The tumor weighed seven pounds and two ounces immediately after removal, and belonged to the kind of structure usually, but vaguely, denominated osteo-sarcomatous.

XV.—PLASTIC SURGERY.

Plastic surgery has received very little attention in Kentucky ; at all events, it has thus far failed to achieve any important triumph. Whether this is owing to the want of cases among us, requiring the resources of this department of the profession, or to an indisposition on the part of our operators to engage in such enterprises, it is not in my power to determine. I am not aware that the Lexington surgeons have accomplished anything in this field, and in Louisville, I know, very little has been done. I have, in a few instances, resorted to autoplasty, with a view of remedying the deformities and inconveniences occasioned by burns and scalds ; but the results have always failed to satisfy me, or to confer any material benefit upon my patients.

In June, 1851, I witnessed, at the Louisville Marine Hospital, in the hands of Dr. B. I. Raphael, a rhinoplastic operation, the result of which was quite creditable to his skill and judgment.* The patient, an Irish female, aged thirty, had lost the right ala of the nose from the effects of syphilis, contracted nine months before. The operation was commenced by paring the edge of the remnant of the nose, and raising from the cheek a flap, the outline of which had been previously traced in ink with the aid of a piece of paper. A pedicle, about a quarter of an inch in length by the eighth of an inch in breadth, served to maintain the connection between the parts. The flap being twisted half round, was retained by four sutures and adhesive strips, applied

* Transylvania Medical Journal, for August, 1851, p. 28.

over the nose and cheek, in such a manner as to avoid undue compression. The wound was also closed by sutures. The parts united by the first intention, and the patient was soon after discharged entirely well, and with great improvement in the features.

XVI.—TENOTOMY.

This operation, so fashionable in Europe and America a few years ago, has not been overlooked. Still, it has not, there is reason to believe, received from the surgeons of Kentucky that attention to which its utility and importance entitle it. No one can doubt that the operation has been much abused, and that it has often been performed by ignorant and incompetent men to the prejudice both of the profession and those who were the subjects of it; but it is equally certain that it is capable, when properly executed, of conferring immense benefit upon a class of patients, who, until the researches of Stromeyer, of Hanover, less than twenty years ago, were generally regarded as incurable, and therefore abandoned to their unhappy fate. Experience, multiplied and reproduced in thousands upon thousands of cases, has fully demonstrated the safety and practicability of the procedure, at every period of life, and in almost every form of muscular, tendinous, and aponeurotic contraction, whether occurring in club-foot, strabismus, wry-neck, spinal curvature, or false ankylosis.

The operation for the cure of *club-foot* has been repeatedly performed by some of the surgeons of this State, and, in many instances, with the most gratifying results. One of the first, if not the very first, of our practitioners who have busied themselves in this manner, was Dr. S. B. Richardson, of this city, who, in a long and valuable essay in the second volume of the *Western Journal of Medicine and Surgery*, called the attention of the profession prominently to the subject, and adduced several cases in illustration of the success of the operation, which he performed, it would seem, for the first time, in April, 1839. The nature of the operation, then so novel and exciting, its safety and its applicability to an unfortunate class of individuals, are now

so well known and appreciated by the profession at large that any further allusion to the subject would be out of place in a paper of this kind.

I was the first, so far as I am informed, who performed the operation for *strabismus* in Kentucky. My first case occurred in February, 1841, in the person of a medical student from Alabama, and was entirely successful. Since that period I have repeated the operation, probably upwards of one hundred times, with a result of the most gratifying character. An elaborate clinical lecture upon this subject, setting forth the nature and causes of strabismus, together with the best method of performing the operation for its relief, will be found in the Western Journal of Medicine and Surgery for 1842.

XVII.—ARMY SURGERY.

The army surgery of Kentucky is remarkably barren of practical results. It is reasonable to suppose, that, during the early settlement of the "dark and bloody ground," many interesting cases of wounds and other injuries occurred in the rencounters of the whites with the Indians; but of these, unfortunately, no record has been preserved; at all events, none has come within my reach. Doubtless, many traditional facts exist, which, if collected and arranged, might prove of no little interest and value. The tomahawk and scalping-knife might, could they now speak as they once did, unfold a horrid tale.

During the late war with Great Britain, Kentucky furnished her quota of surgeons, some of whom served with great distinction, rendering themselves conspicuous alike for their science, their humanity, and their patriotism. I am not aware, however, that they have left any contributions to our periodical literature of the results of their observation and experience. We can only express our regret at such negligence, the cause, no doubt, of the loss of much useful matter.

My friend, Dr. J. M. Mills, of Frankfort, has kindly furnished me with a list of the names of the surgeons and their assistants, as they are recorded in the Executive Journal of the State of

Kentucky, from the 11th of August, 1812, to the 7th of February, 1815, the period embraced by the last war with England.

1812.

Surgeons.

W. H. Richardson,
William H. Craig,
Daniel B. Potter,
Ardemus D. Roberts,
John Todd,
James W. Tunstall,
James McDowell,
John A. Knight,
Thomas C. Davis,
John Moore,
James Moore,

Assistant Surgeons.

Robert M. Ewing,
G. C. Patrick,
Daniel Nelson,
Jesse Dodson,
Thomas Donophan,
Augustus M. Bowen,
Thomas N. Gist,
Duff Green,
Samuel Merriweather,
Moses Ferris, } *Ass's attached to the*
Gibson Taylor, } *hospital department.*

1814.

John Bosley, Arthur Craddock,
John M. Talbot, *senior surgeon to the detachment.*

1815.

Patrick Major, Henry Winslow.

During the Mexican war, which eventuated so honorably to our arms, and so advantageously to the cause of civilization and the spread of christianity, Kentucky was again favorably represented. Her surgical staff, consisting of Drs. T. L. Caldwell, Hensley, and Hunt, with their assistants, Drs. Mathews, Blanton, and Snell, were eminently qualified for the discharge of the arduous and responsible duties devolved upon them, and were ever ready to minister, by all the resources within their reach, to the sick, the wounded, and the dying. It is to be regretted that none of the gentlemen thus engaged have furnished the profession with a complete and connected history of their campaigns. The battles of Monterey, Buena Vista, and other places were prolific in interesting and instructive cases of gun-shot, sword, lance, and sabre wounds, many of them of a very severe and complicated character, and necessitating important operations. With the exception of two short and detached papers by Dr. Blanton, of Frankfort, in the *Western Lancet*, for September, 1847, and the *American Journal of the Medical Sciences*, for January, 1849, nothing has appeared upon the subject. These papers, although interesting, are hardly of sufficient moment to

require special consideration in a report of this kind. The first comprises an account of three surgical cases which occurred at Buena Vista, in February, 1847, and the latter, a case of gun-shot wound of the chest, in which the ball, entering between the second and third ribs in front, passed through the left lung, and lodged under the scapula. The patient lived upwards of a year, becoming very fat, and finally died of inflammation of the stomach. The left lung was completely atrophied, not being larger than a man's hand; the pleuritic cavity was intersected by dense organized bands; and the pericardium was every where adherent to the heart. The ball, composed of metal, and weighing four ounces and five grains, was situated between the spinal column and the end of the fifth rib, where it was partially inclosed, along with a brass button, and a considerable quantity of dead bone, by a thick membrane.

Dr. John Mathews, of this city, who was attached to Col. Ormsby's regiment, and who was present at the battle of Buena Vista, has communicated to me some very singular facts respecting gun-shot wounds. After the battle of Buena Vista he had charge of a hospital at Saltillo, containing one hundred and ten wounded Kentuckians. Of these, twenty-six were shot nearly at the same place, the ball entering the deltoid muscle, ranging upwards over the shoulder, and lodging in the neck and back, from which it was afterwards extracted. All these men did well, and finally recovered.

The same gentleman has related to me a case of gun-shot wound of the hip and thigh, attended with the most frightful laceration and contusion of the soft parts, and followed by complete recovery. The patient, aged twenty-two, a private in the 2d Kentucky regiment, of good constitution, had been eight months in the service, when he was wounded by a ball. He was found, at night, on the battle field, nearly speechless and pulseless, and so far exhausted that the surgeon who saw him in this plight merely gave him some brandy, and loosely bound up his limb. The next morning at day light the man was put, along with others, into a rough wagon, and hauled over the loose shingle rock of the Sierra Madre, a distance of five miles, to the hospital. Dr. Mathews found him in the most miserable condition; the

muscles of the right hip and outer and posterior part of the thigh, as low down as the popliteal space, were almost entirely torn away, the head of the thigh-bone denuded, and the pulsation of the femoral artery distinctly visible on the inner side of the limb. Desperate as the case seemed to be, an attempt was made to save the poor fellow without any more mutilation. After cleansing the wound, and dissecting off the dead parts, the bandage and cold water dressings were applied, and the man was put upon stimulants and a nourishing diet. A rapid improvement followed, and at the end of three months he was so far recovered as to be able to return to the United States, with a very good use of his limb. I saw this patient several times after his arrival in Louisville, and a more remarkable recovery could hardly be imagined.

Dr. Mathews says that, much to his surprise and gratification, not a single case of tetanus supervened upon the many frightful wounds occurring at the battle of Buena Vista. At Monterey a few cases of erysipelas were witnessed after injuries of the scalp and lower extremities. The same disease also made its appearance in camp from constitutional causes; but yielded readily to prompt and efficient treatment.

It affords me much pleasure to allude here, in connection with the brief contribution of Surgeon Mathews, to a paper "On the Diseases of the United States Army on the Rio Grande," by Dr. William G. Proctor, who served in the Mexican war in the capacity of hospital steward to the Louisville Legion. It is contained in the *Western Journal of Medicine and Surgery*, for June, 1848, and was originally presented, as an inaugural dissertation, to the Trustees and Medical Faculty of the University of Louisville for the degree of Doctor of Medicine, in March, 1848. It is by far the most valuable and instructive contribution that has appeared from the pen of any of the professional gentlemen who served in Mexico from this State.

In speaking of wounds, Dr. Proctor observes: "I am happy to say that all ordinary wounds in sound constitutions healed as promptly and kindly as could have been desired, though in broken down and weak constitutions I think there was probably more sloughing, and that convalescence was not as speedy as it would have

been under more favorable circumstances. A fact which, he continues, I may as well notice here, is the remarkable rapidity with which maggots were generated. Wounds dressed one morning were found on the succeeding morning to contain great numbers of these animals. If a dressing was allowed to remain on, or great care was not taken in cleansing the part, in forty-eight or fifty-six hours they were found collected in incredible quantities, and of enormous size, frequently as large as a small goose quill and from three to nine lines in length. They were productive of no little pain from the irritation they produced in the parts, their tendency to burrow between divided muscles, and the great horror manifested by patients at their presence." Dr. Proctor is inclined to think that these insects are of spontaneous origin, and he advances some very ingenious arguments in support of his opinion. The means which proved most destructive to them, were turpentine, chloride of sodium or lime, and creasote. The application, however, of these substances, while it would generally kill one growth, would not prevent the speedy generation of another.

Of twenty-three amputations, witnessed by Dr. Proctor, in Mexico, six were secondary, and of these only one was lost; the others were primary, and three were lost. The most disagreeable effects which he noticed in the secondary operations were the slower convalescence, and the greater drain upon the system.

Dr. Proctor refers to the case of a volunteer in the 1st Mississippi regiment, who recovered, after having refused to submit to amputation, from a most violent wound of the knee, destroying the patella and a portion of the inner condyle of the thigh-bone, and causing the most extensive exposure of the joint. He also mentions the case of a private in the 1st Tennessee regiment, who had a compound communicated fracture of the radius and ulna, made by an escopet ball; his recovery was deemed almost impossible; he refused to have the limb cut off; and, when Dr. Proctor last saw him, he had so far regained the functions of his hand as to be able to use it in eating, and washing his face.

XVIII.—SURGEONS AND PHYSICIANS OF LOUISVILLE.

In drawing up this report, I have naturally felt some desire to inquire into the past history of the medical profession of Louisville; and, although this is a topic which does not strictly fall within the limits of the duties assigned to me by my associates; yet I hope that the brief sketch which I am about to offer will not be wholly devoid of interest, or regarded as entirely irrelevant. The materials have been kindly furnished me by my friend, Dr. James C. Johnston, well known to us all as a most accomplished gentleman, and as the head, for a number of years, of the profession in this part of the State.

Louisville was originally a frontier post, and was not incorporated as a city until 1780. From this period to 1787, the practice of medicine and surgery was confined to the surgeons of the army, attached to the fortifications of the West. In this capacity, Dr. Skinner, a native of Maryland, was stationed at this place. But little is known of him, beyond the fact that he was a highly accomplished gentleman and physician, and that he served as surgeon in the American revolution. He was a man of great popularity, and enjoyed the confidence and good opinion of all who were acquainted with him.

Dr. Skinner was succeeded by Dr. Ellison and Dr. Carmichael, both accomplished and experienced men in their profession, and who had likewise served as surgeons in the Revolutionary army. They left Louisville about the year 1787, and were succeeded by men of less pretention and skill. Among these were Dr. Richard Jones Waters, Dr. Elisha Lee Hall, Dr. Tate, and Dr. O'Fallan. Waters was a man of genius and cultivation, but hated his profession, and, gentleman-like, practised only when he felt inclined; he was intemperate, and finally fell a victim to an ill-fated passion. Hall and Tate had not regularly studied their profession, and their fame extended only to the cure of fever and ague, which was then, as well as for a long time afterwards, very rife in Louisville. Dr. O'Fallan was an old man when he settled here, and survived only a few years. He was the father of the present Col. O'Fallan, a very wealthy and highly respectable citizen of St. Louis, and for many years an officer in the U. S. army.

Near the close of the last century there appeared, all at once, in the medical horizon of Louisville, a galaxy of medical men, all well educated, refined, and accomplished. These gentlemen were Drs. Watkins, Collins, Galt, and Ferguson. Watkins, in a short time, realized a fortune—whether by his practice, or some other means, I am not informed—and removed to Augusta, in Georgia. Dr. Collins was a native of Massachusetts, and was educated at Harvard University. He enjoyed, it would seem, a higher reputation than any physician on this side of the Allegheny mountains, and has been often represented to me as a man of real greatness. He practised surgery with uncommon success, and possessed, in an eminent degree, the confidence and regard of the community. Dr. Collins fell a victim to consumption in 1812.

After the death of Collins, Drs. Galt and Ferguson held almost undisputed sway in the profession, the members of which were then comparatively few. The surgical practice was done chiefly by Dr. Ferguson, until about 1811, when the medical corps of the city received a large and important accession in the persons of Dr. James C. Johnston, Dr. John Croghan, Dr. George W. Smith and Dr. Murray. The first two of these gentlemen were graduates of the University of Pennsylvania, the former having been the private pupil of Dr. Chapman, and the latter of Dr. Rush. Both were ambitious of high renown; but fortune spoiled their fate, for they had not that impulsive power, necessity, to urge them on in their career of usefulness and fame. Croghan practised but a short time, and then retired to the country, where his mansion was for many years the seat of an elegant and refined hospitality. Few men, as many of the members of this Society can testify, ever did the honors of the table in a more graceful and engaging manner. Dr. Croghan was the brother of Col. Croghan, the intrepid defender of Fort Sandusky, in the last war with Great Britain. He was the proprietor of the Mammoth Cave, which he sought, at one time, to convert into a place for the accommodation of consumptive invalids. His efforts, as is well known, proved a signal failure. Dr. Croghan died of phthisis, at his residence at Locust Grove, six miles from this city, in January, 1849.

Dr. Johnson continued in the profession until 1835, enjoying a high reputation as a gentleman, a scholar, and a practitioner, and performing many important surgical operations. One of these operations has been already alluded to. Although no longer engaged in the strife and turmoil of the profession, Dr. Johnston still evinces the deepest interest in its prosperity and advancement. Secure in the confidence of his friends and the community, blessed with a noble, educated, and refined family, and in the possession of an ample fortune, long may he be spared to the domestic circle, to Louisville, the scene of his early labors and of his constant affection, and to Kentucky, for which he has always felt a Kentuckian's pride and a Kentuckian's regard.

Dr. Murry's health, at an early period, disqualified him for the arduous duties of the profession. Grown prematurely old, he yet lingers among us, like a venerable relic, happy in the confidence of the community, and in the consciousness of a well-spent life. Dr. Smith still practices his profession. With a vigorous constitution, and a contented mind, he looks, as if, like the sturdy oak of the forest, he might withstand many a storm, and out-live many of his younger brethren.

Of Dr. Galt, who may be emphatically called the "beloved physician," I fain would speak, but propriety forbids. He still survives, a noble link in the broken chain between the past and the present. No man, in any walk of life, has ever been more universally respected; no physician, more honored and revered. During a residence in Louisville of twelve years, I have never heard a breath or whisper of any kind uttered against this excellent, noble-hearted, and generous man. In his intercourse with his professional brethren, his conduct was always regulated by the strictest principles of honor and integrity. No practitioner was ever more punctual in his engagements at a consultation; none more frank and modest in the expression of his views and opinions. His example in this respect, as well as in many others, is worthy of the imitation of every member of the profession. After having borne "the heat and burden of the day" for upwards of forty years, dispensing with a profuse and liberal hand the blessings of his knowledge and his purse, he retired, a few years ago, to his elegant country residence, where, in an atmosphere redo-

lent with the fragrance of the rose and the lily, the product of his own taste and culture, he is spending the evening of his life in the study and contemplation of Nature and of Nature's God; a befitting close of the career of such a man and such a physician.

About the year 1822, so celebrated in our annals for its epidemic fever, which literally decimated our population, and steeped every family in the deepest grief, several gentlemen of high professional pretensions settled in Louisville. Among these were Dr. Coleman Rogers, Dr. Benjamin H. Hall, Dr. Gist, and Dr. Benjamin Tompkins, the last three of whom are all dead. Tompkins was a man of genius, a scholar, and a thorough proficient in his profession; and although he fell a victim on the altar of Bacchus, yet he proudly contended, to the last, for the palm of precedence. Hall was a native of Fredericksburg, Virginia; he was descended from a good family, was well educated, and was a good physician. He died, some years ago, of cholera, in New Orleans, whither he had gone, late in life, to repair his broken fortune. He was fond of a pinch of snuff, a gold-headed cane, a fine coat, a good dinner, and a good anecdote. Gist was a Kentuckian, and a man of genius, but without ambition.

From the preceding facts and observations it is evident that Kentucky surgery has neither been idle, inactive, nor stationary. When we reflect that scarcely eighty years have elapsed since the adventurous Boone first planted his foot upon the "dark and bloody" ground, in pursuit of the deer, the panther, and of "elbow-room;" that our State is hardly sixty years of age; and that less than three-quarters of a century have passed away since the first settlement of the very spot upon which we are now assembled; we are struck with wonder and amazement at our achievements in this department of the healing art. In originality of conception and boldness of execution, Kentucky surgery may proudly challenge comparison with that of any of the older States in the Union. Its exploits in ovariectomy and lithotomy alone are sufficient to entitle it to the highest rank in the annals of American surgery. The historian of Kentucky, in recounting the services of her illustrious children, will not fail to enrich his pages with an account of the scientific achievements of her Mc-

Dowell and her Dudley ; he will assign them a distinguished position by the side of her statesmen, her jurists, and her warriors, and he will pronounce them thrice-blessed, as benefactors of the human race. The operations of these distinguished surgeons are familiar to every scientific and enlightened physician in the civilized world, and their names are just as much honored and appreciated by their professional brethren at home, as are those of Clay and Crittenden by the American public at large.

Looking at the past, may we not hope that the future career of Kentucky surgery may be equally prosperous and happy ; that the men who are now upon the field may rival the achievements of those who have preceded them, and earn, by their energy, their skill, and their attainments, a distinction which, while it shall immortalize their names, shall reflect imperishable lustre upon their State and upon the age in which they live. Throwing aside all unworthy rivalry, all selfishness, and all personal feeling, let them strive to live and to labor only for the glory of their profession and the service of their fellow-men.

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